

NATIONAL LIBRARY OF MEDICINE
Washington



Founded 1836

U. S. Department of Health, Education, and Welfare
Public Health Service

100

9

THE
DOMESTIC MANUAL:

OR

FAMILY DIRECTORY.

Containing

RECEIPTS IN ARTS, TRADES AND DOMESTIC ECONOMY ;

SELECTED FROM THE BEST AUTHORS, AND PRACTICAL ARTISTS ; AND CONTAINING MANY PROCESSES, NEVER BEFORE PUBLISHED.

BY H. I. HARWELL.

NEW-LONDON:

PRINTED BY SAMUEL GREEN.

.....

1816.

DISTRICT OF CONNECTICUT, 55.

BE IT REMEMBERED, That on the first
(L. S.) day of February, in the fortieth year of the
Independence of the United States of America,
JOHN W. GREEN, of said District, hath deposited in
this office the title of a Book, the right whereof he claims
as Proprietor, in the words following, *to wit* :—" The
Domestic Manual, or Family Directory.—Containing
receipts in arts, trades and domestic œconomy ; select-
ed from the best authors, and practical artists ; and con-
taining many processes, never before published. By
H. I. HARWELL.

In conformity to the Act of the Congress of the Uni-
ted States, entitled, " An Act for the encouragement
of learning, by securing the copies of Maps, Charts and
Books to the Authors and Proprietors of them during
the times therein mentioned."

HENRY W. EDWARDS,

Clerk of the District of Connecticut.

A true copy of Record : Examined and sealed by me,

H. W. EDWARDS, *Clerk of the Dist. of Conn.*

AP 5 Nov 151

ADVERTISEMENT

TO THE PUBLIC.

THE following Receipts, are offered to the Public, in the full belief, that among them, every person will find something of advantage to himself.

In a family, they will be found highly serviceable, as affording information on subjects which are understood by few, except the chemist or professed artist.—To the œconomist, as enabling him to perform that for himself, which he has hitherto paid others for doing for him—and to the man of wealth and leisure, they will at least, afford a series of interesting experiments.

Particular care has been taken, to make every direction, and every proportion, intelligible to every person; and for that reason, every technical term has been discarded. In general, every receipt in the arts, has been so wrapt up in mystery, that in reading a receipt, the man of plain, good sense, is so often bewildered by the peculiar jargon of particular trades, that he might as well have read a receipt in a language with which he was entirely unacquainted. This misfortune has been studiously avoided, and if there should be a substance mentioned, with which the reader is not acquainted, he may be assured that it is mentioned by its most common name. The principal ingredients, are to be found in the shops of the Druggists, and by purchasing of them, and compounding afterwards, much cost may be saved.

51/1181



THE DOMESTIC MANUAL.

TO DESTROY MOTHS.

IT is remarkable that moths never infest unwashed wool; and that they always abandon the place where such raw materials is kept. Hence, those persons, to whom the smell of Turpentine is too offensive, may avail themselves of this circumstance; and place layers of undressed wool, between pieces of cloth, or put small parcels of undressed wool in the corners of shelves, or cupboards, or drawers containing cloathing liable to be injured by them. For this discovery, we are indebted to the celebrated M. REAUMUR.

TO REMOVE RUST FROM IRON:

Combine a proper proportion of quicklime, with mutton tallow, so that when cold, it can be formed into balls—which must be rubbed on the utensil, until it has entirely obliterated the rust; after a slight coating of this has remained a few days on the metal, it is to be removed with coarse flannel rags, and another composition made of equal parts, of charcoal, red calx of vitriol, and boiled linseed oil is applied by continued friction, till the surface is restored to its original brightness.

TO MAKE GINGER-WINE.

To each gallon of water, put two pounds of lump, or best Havanna white sugar, and one ounce and a half of coarsely powdered ginger, tied up in a coarse linen bag; boil these together for half an hour, or as long as any scum continues to rise; the scum must be carefully skimmed off. When sufficiently boiled, put this liquor into a tub, and on its becoming as cool as new milk, add the juice and rind of two lemons, and half a sweet orange for every gallon of it. If ten gallons are made, put in two table-spoonfuls of yeast, on a piece of toasted bread—should the wine be made in cold weather, it must be put into a warm place, the better to promote fermentation, which sometimes does not take place for a day or two. If it ferments freely the third day, it should be barrelled up, with the ginger and rinds altogether in a cask, just calculated to hold it; keeping out a small portion for the purpose of keeping the cask full while it continues working—and the cask must by no means be filled up with what works over. When it has ceased fermenting, rack it off into another cask, adding to every four gallons, a quart of good brandy, with half an ounce of isinglass, previously dissolved in some of the wine.—In one month's time, it will be fit to drink—if bottled off, it will be much better. This is a most excellent cordial liquor, and very cheap.

A VARNISH FOR BRASS, TO GIVE THE APPEARANCE OF GOLD.

Dissolve two ounces of pure gum, say in forty-eight ounces of alcohol, and place the solution in a bottle, in a pot filled with sand, which place over a strong coal fire, until you perceive the sand become hot: then slacken your fire down to a gentle heat, to prevent the evaporation of the spirit, and avoid bursting the vessel—cover the neck of your bottle with a piece of bladder, in which make a number of holes with a pin, to admit the air.—In another vessel, and in the same quantity of spirits of wine, dissolve one ounce of gum tragacanth, in grains.—When compleated, mix the two solutions together, and

put into this mixture, three grains of sander's wood, and let the whole stand for twelve hours in a gentle heat.—Filter through paper, and keep it for use in a perfectly clean phial : sander's wood is preferable to any other substance for giving a golden colour to the varnish made with lac. If you wish it of a pale colour, omit one half of the sander's wood, and if you wish it of a darker colour, add as much more as the above mentioned quantity—It may be laid on with a brush or pencil, and articles thus varnished, will preserve their brilliancy, as long as the varnish lasts ; but they must not be rubbed with chalk, nor with a hard brush, but only washed with soft linen rags.

TO MAKE ICE IN SUMMER.

Take a stone bottle that will contain about three quarts of water, and put into it two ounces of refined salt-petre, and half an ounce of florence, orris-root—fill it nearly full of boiling water ; stop it close. and immediately let it down a deep well ; let it remain there three or four hours, and when you break the bottle, you will find it full of ice.

ALUM FININGS, FOR LIQUORS, CORDIALS, &c.

Boil a drachm of alum, in a pint of water, until the water has half evaporated ; and put into the spirit or cordial, which requires fining, only at the rate of half a tea-spoonful of the alum water, made as warm as new milk, to each gallon. This small quantity, will not at all affect the flavor of the liquor. But great care should be taken, not to exceed that proportion.

FINE CORDIAL HOLLAND GIN.

Take a lump or two of refined sugar, of the size of a walnut or larger—two tea-spoonfuls, each of the oil of juniper, turpentine and almonds. Rub them together, in a marble mortar, with about a wine-glass of

spirits of wine—Introduce, by a little at a time, until the spirit destroys all the oily appearances—then dissolve half a pound of lump sugar, in two quarts of pure water, procure two gallons of rectified whiskey, and mix it first with the combined oils and spirits of wine; afterwards add the sugar and water, stir the whole together, and put in a tea-spoonful of warm alum finings, shake the whole together; let it stand to settle, till clear, and then draw off for use.

TO REMOVE SPOTS, OR STAINS, OF ANY KIND, FROM CLOTH.

Dissolve, in spirits of wine, as much white, shaving soap, as it will take up; and mix this solution with the yolks of from four to six eggs, according to the quantity required; to this add gradually, a small quantity of spirits of turpentine, and incorporate the whole with fuller's earth, so as to form balls, of a suitable consistence—In order to apply it, moisten the spot, and rub it well with the balls; on washing the cloth, the spot will disappear. All spots, except iron mould and ink, may be removed in this manner. N. B.—For removing those, directions are given in another part of this book.

FRENCH MODE OF OBTAINING THE OILS OF FLOWERS, FOR PERFUMERY.

Take a clean earthen pipkin, or deep dish—in which place a layer of cotton, previously dipt in some pure inodorous oil, such as Florence, or Benny oil, when fresh and tasteless—on this, place a layer of fresh rose leaves, or the leaves of any flower you wish; over the layer of flower leaves, then of cotton again, as directed above; and thus continue, until you have filled the vessel with alternate layers of leaves, and cotton—then cover it up closely, and let it stand four or five days, when the oil will be found to have imbibed the flavor of the flowers; take them out, and express the oil from the cotton, carefully, and bottle it for use.

TO STAIN PAPER, OF ANY COLOUR.

Paper, or parchment, may be stained in the following manner—Yellow, by means of a wash made of French berries boiled with a little alum; but a more beautiful yellow may be made, from a tincture of turmeric, obtained by infusing an ounce or more of the powdered root of turmeric, in a pint of spirits of wine, which may be made, so as to give any tint of yellow, from the palest straw colour, to the deep, and full colour, called French Yellow; and will be equal in brightness, to the finest died silks—If the colour be wished of a redder or warmer cast, approaching orange colour—arnatto, or Dragon's blood, must be added to the wash, in such proportion, as to give the shade required.—The best method of using this, or any other colours for staining paper, or parchment, is to spread them evenly over the surface, by means of a broad brush, or sponge, in the manner of varnishing; it may however, be effected with any common brush. A green colour is made by a solution of verdigrise in vinegar, or chrystals of verdigrise dissolved in water; also, by a solution of the filings of copper, in aqua-fortis. or spirit of salt, being gradually added to either. Blues are made by first staining the paper green, according to any of the above methods, and then using a solution of pearlashes, or by preparing indigo, with soap-leys, in the manner commonly used by Dyer's; brushing it over hot, and afterwards using a solution of an ounce and a half of white tartar, or cream of tartar, in a pint of water, before it is quite dry. Orange colour, is made by means of the turmeric root, as above directed for the yellow, and afterwards brushing it over with a solution of fixed alkaline-salt, made by dissolving half an ounce of pearlashes, or salt of tartar, in a quart of water, and filtering the solution. Purple is made by archal, or tincture of logwood; the juice of ripe prill or prim-berries, expressed and spread over the paper, will also communicate a purple colour, to paper or parchment,

CINNAMON CORDIAL.

Two gallons of cinnamon cordial, may be thus made—Take a pound of good bruised cinnamon; two gallons and a pint of clean rectified spirit, or fourth proof rum or brandy, and a quart of pure water—put them into a still, and digest them for twenty-four hours, in a gentle heat, after which draw off two gallons with a moderate fire—this, when thus made, is considered as one of the finest cordials. In the common way, one pound of cinnamon only, is allowed to ten gallons of spirits; in both cases, it is to be observed, that the liquor, must be dulcified with syrup or good sugar.

GOLDEN CORDIAL.

Take one quart of rose-water; one quart of well-water; three quarts of brandy; two pounds of brown sugar; two-hundred peach kernels, and the peals of two oranges; let the peach kernels be well beaten in a mortar; mix the ingredients, and let them stand for four days, then filter and bottle for use.

PRUSSIAN BLUE.

Take of ox-blood, three pounds; four pounds and eight ounces of quicklime; two pounds of red tartar, and one pound and eight ounces of salt-peter.—Let them be calcined and lixiviated; then the ley should be poured into a solution of four pounds of alum, and one pound of green vitriol—this operation, after settling, and drying, produces the finest blue; but the quantity will be little more than eight ounces.

PRUSSIAN BLUE—AS RECOMMENDED BY DR. JOHN PENNINGTON.

Mix six pounds of powdered, burnt black, bones, with one pound of potash; press these ingredients closely into an iron pot, and cover it well with an iron cover, well plastered with moistened clay, or other proper luting—expose the pot to a bright red heat, for three or four hours, then cool gradually, and take out the ingre-

dients ; dissolve the soluble parts in hot water, and strain through flannel. If the blue be desired of the very first quality, pour into the liquor, either spirit of salt or oil of vitriol, until the effervescence ceases on the fresh addition of the spirit of oil—pour the whole into a solution of green vitriol, made by dissolving half a pound of copperas, in two gallons of water.—If a lighter kind of blue is wished, add a less quantity of spirit of salt, or oil of vitriol, to the liquor. from the bones. in which case, add a quarter of a pound of alum, to the solution of green vitriol—then mix a little of the two liquors together, in a phial, and if the color be too light, add more of the spirit, mix the whole together as before—at the instant of mixing the two liquors, which before, were colourless and transparent, the mixture becomes of a deep blue.—In a few hours, the fecula subsides, and bears a transparent liquid on the top, which must be gently poured off and thrown away—the sediment must be stirred up with clean hot water, and suffered again to subside ; this must be repeated, then filtered through paper, and what remains on the paper, must be dried on a cake of chalk,

TO MAKE WHITE VITRIOL.

Although white vitriol is found in several mines, yet the quantity thus procured, is far from being sufficient for the demand for it in medicine, and various trades ; hence, it has become a branch of chemical manufacture, and the product obtained by art, is far superior to the native vitriol. Proceed as follows : mix five parts of sulphuric acid, or oil of vitriol, with twenty parts of pure water, (rain-water, after being boiled and cooled, is the best,) then add gradually, three parts of zinc ; the zinc should be cut or broken into small pieces not exceeding the size of a hazle-nut. When the ebullition or foamy appearance, ceases, the liquor must be strained, and after being evaporated over a very gentle fire, and then placed in the cool air, white chrystals will be formed, which are the white vitriol.

TO BREW A BUSHEL OF MALT, FOR STRONG BEER.

Procure a large tub, with a false bottom, in which are to be bored a number of holes ; cover it with a coarse piece of flannel, so as not to let the matter pass through ; then put into your tub, one bushel of malt, coarsely ground ; add to it, ten or twelve gallons of water, seven and a half of which, are to be boiling, and the rest cold water ; stir it well, and let it stand three hours ; then draw it off, by a hole made between the false bottom, and the other ; then add six gallons of water to the malt, a little hotter than the first—stir it well, and let it stand two hours ; draw this off, and pour on four gallons more of water, hotter than the last—let it stand one hour and draw it off. The two first liquors, or worts as they are called, must now be boiled with a half a pound of hops, continue to boil slowly, for two hours and a half ; as it boils down, add your last liquor, so as to make, in the whole, twelve gallons and a half, or a little less, if you wish it very good ; then strain the liquor through a hair sieve, and set it by in tubs to cool—when it gets down to 70 degrees, of the thermometer, or a little cooler than milk-warm ; add to the twelve gallons, a tea-cupfull of good yeast—put all into a keg, and set the keg on a tub, to save the beer that works out of the bung-hole ; fill up your keg, two or three times, during the day, and in two days and a half, it may be bunged up, and set by—in ten days it is fit for use.

ON VARNISHING.

ON COPAL VARNISH.

Copal or gum copal, as it is commonly called, in its original state, contains a portion of a certain slimy, aqueous, or mucilaginous principle—therefore, to render it proper for varnishing, this property must be evaporated by heat, before it will dissolve in oil ; after the evaporation, it unites in a substance of a nature, composed of an oil, a gum, and a resin ; nor would even oil of tur-

pentine, dissolve it, unless first mixed with linseed oil.— Hence, it appears, that copal is not only resinous, but mucilaginous also; and whoever attempts to render it a proper vehicle, for a varnish, must first destroy its aqueous parts—this is completely effected, by melting it for the following varnish,

COPAL OIL VARNISH.

Take of copal, any quantity, and put it in a large iron pot to melt, over a brisk fire; have ready, of good drying oil, four times the weight of the copal, the oil must be made boiling hot over another fire—as soon as the copal is melted, and the oil sufficiently hot, you must remove the oil, and pour it while quite hot, on the melted copal; continue the mixture on the fire, the heat of which, must be a little abated, and stir together until they are incorporated; then remove from the fire, and add a pint of oil turpentine, to every quart of nut, or linseed oil, while yet warm—Before it is cold, filter through flannel, for use.

NOTE.—Should it be too thick, it can be thinned at the time of using, by spirits of turpentine.

BEST DRYING OIL, FOR COPAL VARNISH.

Take any quantity, of good linseed oil, and to every quart, add two ounces of sugar of lead; boil it gently for some time, or until it will singe a feather—then remove from the fire, for use. You may prepare good nut, or poppy oil, in the same manner, adding, three or four onions, at the same time, to deprive the oil of its greasy quality; and with this oil, a more transparent varnish may be made, which will be quite equal in durability.

NOTE.—You may make amber varnish, by the same process.

COPAL VARNISH, AS PREPARED BY MARTIN.

Procure a pot, that will contain two gallons—the pot should be made in the form of a coffee-pot, with a cover to fit close; care must be taken that the pot be free from flaws, lest it should burst; let this pot be warmed gradually, and pour into it four ounces of chian or cypress turpentine, dissolved in spirits of turpentine; add eight ounces of powdered amber, and mix with the fluid turpentine; set it on the fire for fifteen minutes—then take it off and add gently one pound of powdered copal; stir it well together and add half an ounce more of chian turpentine melted, and eight ounces of warm oil of turpentine; set it on the fire again for half an hour—stir it well together and add four ounces of the best and whitest colophony; make your fire a little brisker, using the bellows, and let it remain until all is dissolved and becomes fluid—remove it from the fire till the excess of heat has abated; have ready twenty-four ounces of good drying oil, either linseed or nut oil, which you must add boiling hot; stir them well together until thoroughly incorporated; set them again on the fire for a few minutes, constantly stirring them, until it boils up once more; remove it some distance from the fire and pour into it one quart of oil of turpentine, made quite hot; stir them well together, and give them another slight boil—take the pot from the fire and add one pint more of oil of turpentine, and stir it a few minutes; set it by to cool, and when about milk-warm, strain through flannel, and put it by for use.

SEED LAC VARNISH.

Seed lac varnish, is preferable to all other varnishes of spirit; particularly where whiteness is no object; It is the most hard and durable, and the least liable to crack, but requires highly rectified spirits to dissolve it, otherwise it is apt to have a cloudy appearance when laid on—it may be made to advantage, as follows:—

Take three ounces of the whitest seed lac, and put it into clear water, to free it from any pieces of sticks or dust, which may be done readily by stirring it about ; and when settled pour off the water, adding a fresh portion until the water comes off clear ; then dry and powder the lac, and add one pint of highly rectified spirits of wine. put it into a bottle that will hold double the quantity—shake the mixture well, and place the mixture in an iron pot, filled with sand—keep up a gentle fire under it until the gum is dissolved, then filter through flannel and bottle for use.

SHELL LAC VARNISH.

This varnish is prepared in the same manner as the seed lac varnish, only instead of washing ; it will be necessary to pick out the most transparent pieces and powder them, and pursue the same mode as is laid down for the seed-lac varnish. This is the brightest varnish, but is not so durable, and is liable to crack.

A GOOD WHITE VARNISH.

Take ten ounces of spirits of wine, gum sandarak in powder, and venetian turpentine, of each two ounces ; put them into a bottle that will contain twice the quantity, and place the bottle in an iron pot filled with sand ; make a gentle fire under the pot so as to heat the sand : Frequently shake the bottle, until the gum and turpentine are dissolved—this is a useful varnish for ornamental purposes or bright colors.

ANOTHER WHITE VARNISH.

Take eight ounces of gum mastich ; two ounces of gum sandarak, and one quart of spirits of wine ; add one ounce of venetian turpentine ; dissolve as above directed, and filter for use.

LACQUER VARNISH.

Take one quart of the best, and strongest brandy, and mix in it one pound of calcined tartar; let the brandy stand upon the tartar for one day, in a gentle heat, then filter through paper. Or Thus:—Take one pint of brandy; six ounces of amber; six ounces of gum sandarack; two ounces of shell lac. Mix these together, and place the vessel in an iron pot filled with sand, which must be gradually heated. On putting the vessel into the sand, add another pint of brandy, and frequently shake the vessel, until the gums are dissolved; then bottle for use.

ANOTHER LACQUER VARNISH.

Take an ounce and a half of clear cypress turpentine; two ounces of gum mastie, and one ounce of gum sandarack—powder the gums and add two ounces of oil of spikenard; one ounce of oil of turpentine, and set them in a kettle of hot sand; when dissolved, filter for use. N. B.—This is proper for laying over all grounds, where transparency is required.

VARNISH FOR IRON WORK.

Take one quart of spirits of wine; eight ounces of gum sandarack; two ounces of gum lac; six ounces of clarified rosin, and six ounces of common turpentine; dissolve in a gentle heat, strain it and bottle for use.

A VARNISH FOR PLAISTER OF PARIS, TO GIVE THE APPEARANCE OF MARBLE.

Take fine white alicant, or shaving soap, and scrape it quite fine; put it into a glazed earthen pot, with a little warm water, and stir it until it becomes milky; cov-

er it from the dust, and let it stand eight days, and it will acquire the consistence of fine varnish. Your varnish thus made, take a soft brush rather short in the hand, and brush the plaister over with it gently, and set the plaister in a place to dry, free from dust, then gently rub it over with a piece of soft linen, placing yourself between it and the light, that you may see how it takes the polish; when this is done, let it dry, and it will have the appearance of marble.

BLACK VARNISH.

Take four ounces of gum lac, and one ounce each of gum sandarak, and black rosin; powder them separately; dissolve the rosin over the fire in a sufficient quantity of spirits of wine; then add the sandarak; when this is melted, put it to the gum lac, and stir them well, till they are melted together; then strain the mixture while warm through a cloth—if there is any thing remaining undissolved, put to it more spirits of wine, and proceed as above directed; then mix with it ivory-black, in the proportion of two drachms, to every two ounces of the composition.

OBSERVATIONS ON VARNISHING.

1. You must choose a warm dry place, as free as possible from dust, cold and moisture, as these last are liable to chill the varnish.

2. The articles to be varnished, should always be of the color you wish them, before you apply the varnish—for, by adding colours to varnishes, you injure them very much.

3. Spirits of wine, being the principal solvent in most varnishes, and indeed in all, except the copals, care should be taken to get the highest rectified spirits—such as will not burn entirely away in a silver spoon, and leave the spoon dry, ought never to be used.

SYMPATHETIC INK.

This, which is easily made, appears to be much superior to the common kind. The simple process of making it, is as follows :—To one part of oil of vitriol, add three parts of rain-water—write what you like with a pen ; the writing remains perfectly invisible, until the paper is held before the fire, and becomes very black, with a degree of heat, that will not, in the least, injure the paper. It is likewise very durable, and may be kept for a long time, before it is put to the fire, and will retain its color long after.

LAVENDAR WATER.

Take one quart of spirits of wine ; three drachms of oil of lavender, and one drachm of essence of amber-grise ; mix them, and shake frequently for two or three days.

A FINE GREEN PAINT—FOR OIL OR WATER.

A durable green pigment, was for a long time a desideratum among painters.—M. KINMAN, a member of the Swedish academy, at length discovered and published the following process :—Dissolve in separate vessels, a portion of zinc, in aqua-fortis, and a portion of cobalt, strongly calcined in aqua-regia, until the liquors are completely saturated. When both solutions are prepared, mix two parts of the latter, with one part of the former—then procure a hot and clarified solution of pot-ash ; three parts of which will be required to precipitate the mixture above described. After it has subsided, the fluid part should be gently poured off, and the sediment evaporated to dryness over a slow fire, until it assumes a green color ; before this pigment can be used, it ought to be repeatedly washed with filtered water.—

Thus, it will become fit, both for oil and water colours, as it is sufficiently fixed to withstand the effects of the air and sun, and the inventor has ascertained its superior durability by more than ten years experience. He adds, that painters, may, by this composition, combine their yellow, and ultramarine, so as to form a very beautiful, and permanent green.

BROWN WATER COLOR.

RUGER, in his pocket-book for painters, gives the following receipt, for preparing an excellent brown-water-color :—Take the smooth ripe shells of the Buck-eye, or horse-chesnut ; reduce them to a coarse powder, and boil them several hours, in water ; next, filter the liquor through flannel, and let it stand, until the colouring particles subside. Then carefully pour off the clear fluid, and dry the sediment. Even in this simple manner, the decoction affords a beautiful brown color, but is considerably improved on adding a small portion of gum arabic.

ARTIFICIAL LAC.

Artificial lac, or lake, is made of dyes of various colors, to which a body is given, by adding powdered cuttle fish-bones. It is at present, prepared chiefly from scarlet rags, cochineal, or Brazil-wood.—The best however, is obtained from the first of these articles, in the following manner :—First, let a pound of pearlsh be dissolved in two quarts of water, and the solution filtered through paper.—Next, a pound of clean scarlet shreds, are to be added to the liquor, with two quarts of water, and then boiled until the rags be divested of their color, when they are to be taken out and pressed—three additional pounds of shreds, are now to be boiled in the same solution ; and during this process, a pound and a

half of the bones of cuttle-fish powdered, are to be dissolved in a pint of aqua-fortis. This liquid is next to be combined with the former solution; and the whole, on being suffered to subside, will deposit a sediment, which forms what is called lake :—The liquor is then to be strained, and the sediment to be mixed four or five times successively, in two gallons of spring, or rain-water, till all the saline particles are extracted.—Lastly, it is to be drained and dropped on a clean board through a funnel—when the lake will assume the form of cones, or pyramids; in which shape it must be suffered to dry, and the preparation is then fit for use.

CRIMSON DYE, FOR WOOLEN.

To dye sixteen pounds weight of any woollen article, boil somewhat more than twelve gallons of water, and putting into it sixteen handfulls of wheat bran; stir it well, let it stand all night to settle, and in the morning strain off the clear liquor; mix half of this liquor with as much clean water, as will admit the stuff to be commodiously worked in it, and having boiled the mixed liquor, add to it a pound of alum, and half a pound of tartar. After boiling these well together, put in the article to be dyed and boil for two hours; keeping them continually stirring, especially if they be of wool or worsted: In stirring them, frequently turn them from top to bottom, in order equally to impregnate each part with the liquor; boil the remainder of the bran water, with an equal quantity, or rather more of clean water; and when it boils rapidly, put in four ounces of cochineal, and two ounces of pure white tartar in powder, stirring the whole well, and taking care that it neither runs over, nor boils too fast; when it has boiled a little time, put in your cloths, stuffs, &c. and stir them about, until they appear to have taken the dye in every part; then cool them, and rinse them out.

A GREEN DYE FOR SILK.

For every pound of silk, intended to be colored, dissolve a quarter of a pound of alum, and two ounces of white tartar, both beaten fine in hot water; soak your silk in it all night, and next morning take it out and dry it; this done, boil a pound of the plant called broom, in a pailfull and a half of water, for an hour or more; then take out the broom and throw it away; then put in half an ounce of powdered verdigrise, stirring it well about with a clean stick:—Put in the silk, and let it remain for a quarter of an hour, after which, take it out, and let it remain until it is cold—then put in an ounce of potash; stir it about, and put your silk in again; keep it in the dye, till it seems considerable yellow; then rinse it out and let it dry—after which, put it into a vat of blue dye, and let it remain there until it becomes of a sufficiently dark green, when it must be slightly beaten and dried:—By letting it remain a longer or shorter time, a darker or lighter green will be produced; at first, only a faint green is procured.

BLUE DYE FOR SILK.

Procure a large tub, which may be closely covered, and put into it a lie, made of three pails of rain, or river water, and clean beech wood ashes, adding two handfuls of wheat bran, two ounces each of madder and white tartar, and half a pound of pounded indigo; stir it well together with a clean stick, every twelve hours, for a fortnight, until it gives to a piece of white cloth, dipped into it, a greenish tinge.—When the dye grows bright, it must be stirred only every morning. Put the silk into a warm fresh lie, wring it out and then stir about in the dye for a little time, afterwards hang it in the dye, so that every part may be equally exposed to the liquid; besides the kettle for blue dye, there ought always to be another, full of lie, for rinsing the silk, when it is wrung out of the dye, and after it is very

cleanly wrung out of the dye, it should be rinsed in brook or rain-water, then beaten, and dried. If the silk be moistened in this latter lie of suds before it is dried, there is no need of the first mentioned lie—with this lie several kinds of blue may easily be made, either brighter or darker, according to the time the silks are left in; and when the kettle gets too low, it may be filled up from the rinsing vat—when your blue dye becomes too weak, put in a quarter of a pound of pounded indigo; half a pound of potash; half an ounce of madder; a handfull of wheat bran, and a quarter of an ounce of pounded tartar; let it stand eight days without using, stirring it well every twelve hours, it may then be used as at first.

STRAW COLOUR DYE FOR SILK.

Wash out your silk in alum-water, rinse it well, and as many pounds as your silk weighs, so many pounds of broom-flowers, must be boiled in water for a quarter of an hour—then put it into a tub; the water must be equal in weight to the broom-flowers: put in your silk, and after stirring your silk in it, fill the kettle again with water, and stir it while boiling for half an hour.—The silk being wrung out the first suds, put the flowers into the second; and should there be occasion, make some still stronger, and stir the silk in it, until the colour become sufficiently heightened. Then rinse it out, and hang up to dry.

FINE RED DYE FOR SILK.

For every pound of silk, put four handfulls of wheat bran, into a kettle with two pailfulls of water; and boiling them together, pour the liquor into a tub, let it stand all night, and strain it quite clear the next morning. Then put into it, half a pound of alum, a quarter

of a pound of red tartar, reduced to a fine powder, and half an ounce of finely powdered turmeric :—Boil and stir them well together, for a quarter of an hour ; then taking off the kettle immediately, put in the silk, and cover the kettle very close, to prevent any of the steam from evaporating. When it has stood thus, for three hours, take out the silk, rinse it in cold water, beat it well on a block, and let it dry. Then put a quarter of a pound of powdered galls into a pailful of rain-water, boil them for at least an hour, and taking the kettle from the fire, when the liquor is sufficiently cool to admit the hand without being scalded, put in the silk, and let it remain, steeped in it for an hour. In the mean time, after taking out and drying the silk, for every pound of silk boil a pound of Brazil-wood in chips, and strain it :—Then boil the wood again, adding cold water to it ; turn the silk about in this liquid, and when it has sufficiently imbibed the tincture, take it out without wringing it :—Lastly, add a little potash, or put the potash into cold water, and turning the silk up and down in it, when it is sufficiently red, rinse and dry it. A deeper or lighter red may be obtained, by letting the silk remain in the dye a longer or shorter time.



LIGHT PURPLE DYE FOR SILK.

Put the silk into a light red dye as above, but increase the quantity of potash, to turn it to purple ; then rinse and dry the silk as usual.



FINE BLUE DYE FOR STOCKINGS, &c.

Grind finely in a glass mortar, an ounce of the finest indigo ; and then pour on the powder, four ounces of the strongest oil of vitriol, stirring it on every addition, with a glass pestle, so that the whole mixture may occupy at least, two hours. This precaution is

indispensable, as the heat which is generated on adding the oil of vitriol, would otherwise impair the brightness of the colour. The thick mixture thus prepared, is to be introduced by small portions at a time, into such a quantity of water, as may produce a lighter, or a darker shade, according to your fancy. In general, a fine blue liquid may be made, by allowing one spoonful of the mixture, to thirty or forty spoonfuls of water. This diluted solution of indigo, is however, in a state much too caustic and corroding, to be used on paper, &c. To divest it therefore, of its corrosive qualities, where the solution is intended for colouring paper, or as a writing ink, an addition of finely powdered chalk, will be sufficient. The chalk must be carefully added, in small portions, as a large quantity would, at once, cause the mixture to rise above the brim of the vessel. The point of saturation is easy to be ascertained; for when the powdered chalk, scattered on the surface of the liquid, no longer produces any bubbles, the effervescence has ceased, and the solution after standing for twenty-four hours, may be filtered through blotting paper, and put up in bottles for use.—Where, however, it is intended for a liquid blue dye for silk, such as stockings, gloves, &c. the neutralization of the acid or oil of vitriol, will be preferably effected by using potter's clay, instead of the chalk, as it will render the colour more durable. If the solution be wanted for painting on silk, it must previously be mixed with gum tragacanth.

— o o o —

TO STAIN WOOD OF A MAHOGANY COLOUR.

Put a quarter of a pound of logwood, and the same quantity, each of Brazil-wood, and yellow fustic, into three separate vessels, with three pints of rain, or brook-water, and a tea-spoonful of salt of tartar, to each.—Boil them all very slowly, for four or five hours,

or till the quantity of each is reduced to a pint ; then strain them separately through cloths, mix the different colours as nearly as possible to the shade required, and after being satisfied with the effect by trying it on a piece of wood, apply it to the work with a brush or sponge—the best kinds of wood to which this mixture can be applied, are maple, beech and birch—any wood however, of a dense grain, as pear-tree, or cherry, will answer,

FOR RESTORING SCORCHED LINEN.

Boil till middling thick, in a half a pint of vinegar, two ounces of fuller's earth, or potter's clay, one ounce of hen's dung, half an ounce of cake soap, and the juice of two onions ; spread this composition over the whole of the damaged part, and if the texture of the linen is not destroyed, nor the threads consumed by the fire, after letting it dry on, and giving it one or two good washings, the place will appear full as white and perfect, as any other part of the linen.

OTTAR OF ROSES.

To prepare the ottar, or essential oil of roses, put into a still, as many as can be procured, of the largest and freshest roses, with a third part of their weight of filtered water, or rain water that has been boiled ; mix the mass with the hand, kindle a gentle fire under your still, and as soon as the liquid becomes hot, lute well all the interstices, and place cold water in the refrigerator ; when the distilled water comes over, the heat must be gradually diminished, till a sufficient quantity of the first runnings, be drawn off—then add of fresh water, a quantity, equal in weight to that of the roses, on their first entering the still ; and repeat the same process as before, until a due portion of the second runnings be

obtained; pour the distilled water into shallow, earthen or tin vessels, like milk set for cream, and let it stand exposed to the air until next morning, when the ottar or oil, will appear in a congelated state on the surface, and is to be carefully skimmed off, and put into a close glass-stopped bottle.—The remaining water should be employed in distilling fresh roses, for obtaining more essence; and even the dregs are to be preserved for use, as containing a perfume of nearly equal odor with the ottar, thus prepared.

TO EXTRACT GREASE-SPOTS, FROM
PRINTS, BOOKS OR WRITINGS—
BY M. DESCHAMPS.

Warm the paper moderately, and extract as much as possible of the oily substance with which it is stained, by blotting paper—then dip a small brush or hair-pencil into the oil of highly rectified spirits of turpentine, heated almost to boiling; draw it gently over both sides of the paper where it is damaged, taking care to keep it warm. This operation must be repeated according to the quantity of the greasy substances, that the paper has imbibed; when the greasy substance is removed, if the paper should have lost any of its original whiteness, dip another brush in highly rectified spirits of wine, and draw it in like manner for discolouration, particularly round its edges.—If these simple means are used with proper precaution, the spot will entirely disappear, and the paper resume its original whiteness, without any alteration of the appearance of the ink.

GREEN AND YELLOW USQUEBAUGH.

Take a gallon of best brandy, an ounce of cinnamon, half an ounce each of mace and cloves, a quarter of an ounce each of nutmegs and ginger; beat the whole of the spices and ginger in a mortar, and infuse them in the brandy, for eight days, adding the rind of

a Seville orange. Then boil two ounces of sliced, and bruised stick liquorice, and a pound of stoned jar or box raisins, in three pints of water, till reduced to half the quantity; and after straining the liquid, dissolve in it two ounces of powdered loaf sugar—mix this in another vessel, with the clear infusion of the brandy and spices, and the usquebaugh, will now want nothing but the colour. To tinge half the above quantity green, pound a sufficient quantity of spinach, to produce half a gill of juice; mix it with as much water, simmer them slowly over the fire for ten minutes, and when cold, add this green decoction to that portion of the liquor. For the other half, if wanted to be made of a yellowish tinge, steep half an ounce of saffron, in brandy or white wine; press it through a soft linen bag, and add it to the remainder. Into each quantity, put a few drops of warm alum-finnings; shake the liquor well, two or three times a day, for three or four days, being careful to give it vent each time; set it by for three or four weeks, and it will be fit for use.—These cordials furnish an excellent stomachic medicine.

TO PRESERVE MEAT FROM TAIN'T.

By packing meat, game, &c. in charcoal, you will preserve it from tainting: If already slightly tainted, you may restore it in the following manner:—Boil a quantity of water, sufficient completely to immerse the tainted meat, fowl, &c.—Have in readiness, three or four large pieces of charcoal, red hot, and plunge them into the boiling water, at the same time with the tainted article; by the time the coals are quenched, the taint will, in most cases, be wholly removed, and the meat or fowl, if intended for roasting, may immediately be taken out and instantly put on the spit:—This operation ought not to be performed until you are perfectly ready to cook the article. Unless the taint has very far advanced, this process will not only very effectually remove it, but the meat will be found to have a better relish than if it had not had occasion for it.

**TO PRESERVE PEACHES, APRICOTS,
PLUMBS, &c. FRESH THRO' THE
YEAR—BY M. LEMERY.**

Beat up well together in a mortar, equal quantities of honey and spring-water ; pour it into an earthen vessel, and put in the fruits, freshly gathered, and cover up the pot close—when any of the fruit is taken out, wash it in cold water, and it is fit for use.

TO PURIFY PUTRID OR RANCID BUTTER.

Let the butter be melted and skimmed, as if for clarifying ; then put into it a piece of toasted bread, that is well burnt all over—in a minute or two, the butter loses its offensive smell, but the bread becomes perfectly fetid : In this operation, the principle is the same as in restoring putrid meat, by means of charcoal—the carbon or coal formed on the bread, by burning it, absorbing the putrid particles.

LIME WATER.

Take a pound and a quarter of oyster shells burnt in an oven, or upon a hot wood, or coal fire.—When they become red hot, and thoroughly calcined, throw them into a gallon of cold water, from which after standing four hours, and being well stirred, the liquor should be filtered through paper for use ; old oyster shells are better for this purpose than those more recent ; as the latter, from the salt they contain, are apt to crackle and fly.

**GERMAN WAX—FOR POLISHING MA-
HOGANY, &c.**

Cut into small pieces, a quarter of a pound of yellow wax, and melting it in a pipkin, add an ounce of well-pounded colophony, which is a black resin, boiled

in water and afterwards dried ; these being both melted, pour in by degrees, while yet warm, two ounces of spirits of turpentine ; when the whole is thoroughly mixed, pour it off into a tin, or earthen pot, and keep it covered for use.—The method of applying it, after well cleaning and dusting the furniture, is by spreading a little piece of it on a woollen cloth, and rubbing the wood well with it ; in a few days the gloss will be as firm, and as fast as varnish.

TO MAKE RED OR BLACK CHERRY WINE.

Bruise twenty-four pounds of the finest ripe cherries, either red or black—first taking away the stalks and any rotten or unripe fruit, that may be among them ; after pressing out the juice, and even breaking the stones and crushing the kernels, let the whole ferment for twelve hours. Then run the liquid through a large flannel bag, into a vessel beneath, containing a pound of powdered loaf, or best Havanna white sugar, forcing also by pressure, as much of the liquor from the bag as possible — When the sugar is thoroughly dissolved, put the liquor up in bottles, filling the bottles up about half the neck, or within nearly an inch of the cork.—This quantity of good cherries, will generally make six quarts of a most pleasant liquor, without dregs, of a fine deep red colour, more or less bright, according to the kind of cherries used, and it will keep considerably well, if put in a cool place, for more than a year ; an addition, however, of good brandy to every quart, will greatly improve the flavor, give it a body, and in consequence it may be kept much better. This wine, will be fit to drink in two or three months. When the mass is first wrung out, the juice should be expressed as much as possible, before the stones are attempted to be broken, or the kernels bruised ; they are then to be broken with a mallet, or otherwise ; the whole mass is to be returned into the juice, that all may ferment together. The same rule is to be observed in making all other kinds of wine, from stoned fruits, where the flavor of the kernel is desired.

RED AND WHITE METHEGLIN.

For every gallon of wine, or metheglin, to be made, take one pound and a half of honey, half an ounce of tartar, and three quarters of a pound of fruit; if for white wine, white tartar should be used, and if for red, red tartar; the same as to the kind of fruit, for white wine, white currants, and for red, red currants, raspberries, &c.—Prepare the honey by mixing it with as much water as will, when added to the juice, of the fruit, allowing for the diminution occasioned by boiling, make the proposed quantity of wine. This being well boiled and clarified, infuse in it a few leaves each of rosemary, lavender, and sweet-briar, and when they have remained two days, strain it on the expressed juice of the fruit, put in the dissolved tartar, and stirring the whole well together, leave it to ferment. In two or three days, put it into a seasoned cask, and keep filling it up as it works over, and on its ceasing to work, sink into it a linen bag, containing a little orange and lemon peel, a little cinnamon, cloves and nutmegs, with a small clean stone, sufficiently heavy to carry the bag to the bottom of the cask; then closely bung it up—If kept for six months in the cask, and at least nine in the bottles, it will be very excellent—an addition of good French Brandy, improves the liquor, as indeed it does all our common home-made wines, as they are called.

ANOTHER RECEIPT FOR MEAD, OR METHEGLIN.

Mix well the whites of six eggs, in twelve gallons of water; and to this mixture, when it has been well boiled for half an hour and skimmed, add thirty-six pounds of the finest honey, with the rinds of two dozen lemons.—Let them boil together a short time, and on the liquor's becoming sufficiently cool, that is to say, in winter, about milk-marm, and in summer, rather cooler—put into it a pint of yeast, and set it to work; when it

works, put it with the lemon peel, into a second cask, which must be filled up with some of the liquor that has been reserved, as fast as it flows over; and when the hissing ceases, drive the bung close—let it stand five or six months, and bottle it off for use. If intended to be kept for several years, put in a little brandy, and allow a pound more of honey, for every gallon of water.

AN EXCELLENT AMERICAN WINE—
AS RECOMMENDED BY JOSEPH
COOPER, ESQ.

This gentleman in a letter to his friend, gives the following directions which have since been published.

I put a quantity of comb, from which the honey had been drained, into a large tub; and added a barrel of cider, immediately from the press. This mixture was well stirred, and left for one night. It was then strained before a fermentation took place, and honey was added, until the strength of the liquor was sufficient to bear an egg.—It was then put into a barrel, and after the fermentation commenced, the cask was filled every day, for three or four days, that the filth might work out of the bung-hole. When the fermentation moderated, I put the bung in loosely, lest stopping it tight, might cause the cask to burst—at the end of six weeks, the liquor was drawn off into a tub, and the whites of eight eggs well beaten up with a pint of clean sand, were put into it. I then added a gallon of cider spirits, and after mixing the whole together, I returned it into the cask, which had been well cleaned—bunged it tight, and placed it in a proper situation for racking off when fine. In the month of April following, I drew it off into kegs for use, and found it equal in my opinion, to any foreign wine; in the opinion of many judges, it was superior.—This success has induced me to repeat the experiment

for three years ; and I am persuaded, that by using clean honey, instead of the comb, as above directed, such an improvement might be made, as to give a good wholesome wine, without foreign ingredients, at twenty-five cents per gallon, even were all the articles to be purchased at the market prices.

CURRANT WINE.

Take fourteen pounds of currants, when perfectly ripe ; three gallons of cold water ; bruise the currants in the water, and let them remain therein, two or three days, and stir them once a day. Strain the liquor from the fruit and stalks, and add fourteen pounds of sugar to the liquor that has been strained from the currants—the whole may then be barreled, and left a fortnight without putting in the bung ; after which, bung it up close, and bottle it off at the beginning of winter, previously adding for every ten gallons, one quart of French brandy. The sugar should be of a good quality, or honey may be used, allowing about one third more in weight. If the flavor of orange peel, which is very grateful in most wines of this description, be desired, a small quantity of the rind will give it an agreeable flavor. Sloes, bruised and infused in currant wine, impart to the wine a beautiful red colour, and a pleasant rough, subacid taste, resembling that of port wine.

ELDER WINE.

Take twelve and a half gallons of the juice of the ripe elder-berry, and thirty-seven and a half gallons of water, that has been recently boiled, and to every gallon of water, add three and a half pounds of sugar, or four and a half pounds of strained honey, which will incorporate while warm ; add of ginger half an ounce, and of alspice, three quarters of an ounce to every four gallons

of this mixture, and when the whole is a little cooler than milk-warm, add about half a pound of yeast, (brewers yeast if it can be obtained,) and let it ferment slowly for about a fortnight, the bung being out; then bung it up and let it stand for six months, when it will be fit to bottle.



IMITATION OF CHAMPAGNE WINE.

Champagne wine, has been imitated in England, with great success, by using gooseberries, before they are ripe, and supplying the want of saccharine matter, with loaf sugar. In the province of Champagne, sugar is frequently added to the grapes, when they do not attain their full maturity for the preservation of the celebrated Champagne wine; much of the wine they export, is made in this way. The imitation of it with green gooseberries, is salutary, very palatable, and easily to be obtained in this country.



GOOSEBERRY WINE—FROM THE ARCHIVES OF USEFUL KNOWLEDGE.

Dissolve three pounds of white sugar, in four quarts of water; boil it a quarter of an hour, skim it well, and let it stand until it is almost cold; then take four gallons of full ripe gooseberries, bruise them in a mortar, and put them into your vessel, and pour them into your liquor. Let all stand for two days; then strain the wine through a flannel bag into a cask; previous to its being put into the cask, however, it should be stirred every four hours, and having steeped for two days, an ounce of finely clipped isinglass in a quart of good brandy; upon putting the liquor into the cask the isinglass and brandy must be well beat up with the whites of five eggs; put them into the wine and stir up all togeth-

cr. Bung up the cask, and put some clay around the bung. Let it stand for six months and then bottle off for use, putting into each bottle, a small lump of sugar, and a couple of jar raisins. This is a very rich wine, and after being kept a year or two in bottles, is equal to Champagne.

TO MAKE YEAST—FROM MC. HENRY.

Take one gallon of barley malt, of a good quality, and put it into a clean scalded vessel; pour thereon four gallons of clean scalding water, with a clean scalded stick, until thoroughly mixed together; cover the vessel with clean cloth for half an hour, then uncover, and set it in some convenient place to settle; after three or four hours, or when the sediment of the malt is settled to the bottom, pour off the thin part that remains on top, into a clean well scoured iron pot, taking care not to pour off any of the thick—then add four ounces of good hops, and cover the pot close, with a clean scalded iron cover, and set it on a hot fire of coals to boil. Boil it away, one third or more, and then strain all that is in the pot through a hair sieve, into a clean scalded, glazed, earthen pot, and stir into it, with a clean scalded stick, as much superfine flour, as will make it about half thick; that is, neither thick nor thin; stirring it until there are no lumps left; if lumps are left, you will readily perceive that the inside of them will not be scalded—consequently, the yeast will sour. When the lumps are all broken, cover it close for half an hour, then uncover and stir frequently, until it is a little cooler than milk-warm; then add half a pint of genuine good yeast, and stir it well; after this, cover it, and set it, if in summer, in a moderately cool place; and if in winter, in one moderately warm—after it begins to work, be careful to stir two or three times at intervals of half an hour. Then cover it, and set it by to work; after having well fermented, it is fit for use.

STEER'S PATENT OPODELDOCK.

Take two ounces of white shaving soap, two ounces of gum camphor ; spirits of wine, two pounds, (one quart,) spermaceti enough to make it of a consistency to melt when rubbed on the hand. Cut the soap fine, and pulverise the camphor ; then put both into a jug, leaving the mouth open ; add immediately, your spirits of wine ; set it on a slow fire till they are all melted together, then put in spermaceti enough to harden it, and add a few drops, or perhaps a tea-spoonful of the oil of rosemary.

ANOTHER MODE FOR THE ABOVE.

Take five pints of strong spirit, or in that proportion, (more or less ;) one pound of Windsor soap ; five ounces of gum camphor.—Mix these well together, by grinding small portions at a time, in a large mortar ; a marble or wedewood one if possible. Then mix separately, half a pint of spirits of Hartshorn, two drachms of the oil of rosemary, half an ounce of the oil of lavender, half a pint of spirits of wine, and two drachms of oil of origanum ; add the two mixtures together, and bottle while warm.

A THIRD MODE.

Take of white soap, a pound and a quarter ; two ounces of oil of rosemary ; one ounce of oil of peppermint ; three ounces of camphor ; one gallon of rectified spirits of wine, and a pint of the spirits of Hartshorn.—Mix all together in a gentle heat and bottle while warm.

DAMASK LIP SALVE.

Take of olive oil, eighteen ounces; one pound of white wax; an ounce and a half of spermaceti; half a drachm of oil of rhodium. Mix all together over a slow fire, and tinge it with a small quantity of alkanet, so as to give it an agreeable rose colour.

BRITISH OIL.

Take four ounces of Barbadoes tar; half a pound of spirits of turpentine; olive oil, one gallon. Mix them, and shake frequently, till they are incorporated.

SECOND MODE FOR BRITISH OIL.

Take two pounds of Barbadoes tar; five pounds of spirits of turpentine, and oil of amber, two scruples. Mix them, and when all are incorporated, they are fit for use.

THIRD METHOD FOR THE ABOVE.

Take four pounds of Balsam of sulphur; six pounds of Barbadoes tar; one pound of oil of amber, and eight quarts of spirits of turpentine. Mix them as above.

OINTMENT FOR THE ITCH—AND ERUPTIONS ON THE SKIN.

Take of powdered white hellebore, one ounce; of hog's lard, four ounces; of essence of lemons, half a scruple. Mix them into an ointment.

COMMON SEALING WAX.

Take one pound of bees-wax ; one ounce of fine turpentine ; one ounce of sweet oil, and one ounce of rosin, finely powdered. When they are all melted, and the dross skimmed off, put in an ounce and a half of vermillion or red led, finely powdered ; stir them constantly, until they are well incorporated ; and when cooling, form into sticks of such a size as you please.

BLACK SEALING WAX.

Take six ounces of common rosin ; four ounces of bees-wax, and as much lamp or ivory black, as will give the whole a uniform black colour.

COMMON INK POWDER.

Pulverise six ounces of gall nuts, the same quantity of gum arabic, and nine ounces of green vitriol, (copperas ;) the above should be mixed in three quarts of rain water, and half a pint of vinegar.

ANOTHER INK POWDER.

Take half an ounce of pulverised gall nuts ; half an ounce of flowers of sulphur ; two drachms of gum arabic ; common sugar, three drachms. Mix in a pint of rain water, and a gill of vinegar.

INDIAN, OR CHINESE INK.

Take two ounces of ichthyocolla, or fish glue—such as is usually sold by Druggists; make this into a size or varnish, by dissolving it in double its weight of water, placed in a pan over the fire; then take an ounce of Spanish liquorice, commonly called liquorice ball, also, dissolved in twice its weight of water, and grind it up in a mortar, with one ounce of genuine ivory black; add these two mixtures together while hot, and stir them well together, so that they may be thoroughly incorporated. Then place the vessel that contains your ingredients, in a larger vessel, and pour around it so much water as will not be in danger of running over the one that contains your ingredients. Fill up your outside vessel as the water boils away, until you perceive that the liquor in the vessel that contains your mixture becomes thick; (try it by taking out a little and exposing it to the air;) then pour it into leaden moulds greased, or make it up as you please.

CREME DE NOYAU.

Bruise one pound of apricot, or peach kernels, coarsely; then bruise another pound of cherry stones; the stones and kernels of the last, must be all used.—Put both into a vessel that will contain five or six gallons; add three and a half, or four gallons of best brandy, two gallons of water, and five pounds of sugar.—For each quart of liquor, put in two grains of pepper, and eight drachms of cinnamon, both of the last ingredients being bruised; let all stand for three days, and strain through a flannel bag and bottle for use.

ANISEED CORDIAL.

Put half a pint of essential spirit of aniseed, into two quarts of brandy, with one quart of boiled water; add a pint of clarified sugar, strain through flannel, bottle it, and in a few days, it will be fit for use.

FULMINATING POWDER.

Take one drachm of sulphur ; two drachms of salt of tartar, and three drachms of salt petre ; grind them together, and dry them slightly in the sun.—This powder, though of no use in medicine or otherwise, furnishes us with an amusing chemical experiment—half a tea-spoonful of it, when laid on a shovel, and the shovel placed on hot coals, will, when it begins to melt, explode with a noise like that of a pistol, when discharged.

ANODYNE LINIMENT.

Take one ounce of white, Spanish, or shaving soap ; two drachms of Turkey opium, and a pint and a half of spirits of wine ; let them stand near the fire for three days ; then strain the liquor through flannel, and add to it three drachms of camphor. This liniment is of great service in allaying pain in violent rheumatic complaints, when not accompanied by inflammation ; a linen cloth of three or four folds, should be moistened in it, laid on the part affected, and renewed every third or fourth hour, until the pain abates.

EASY METHOD OF PREPARING PHOSPHORIC PHIALS.

Heat a small glass phial, by putting it into a skillet-full of fine sand, and setting it over the fire : Then put into the phial, two or three pieces of phosphorus, (say half the size of a pea ;) stir them about with a piece of red hot iron wire, till the phosphorus is all

spread over, and adheres to the inner surface of the phial, where it will form a redish coating—when by repeatedly introducing the heated wire, this is completely effected; the bottle is to remain open a quarter of an hour, and then corked for use; one end of a common brimstone match being put into a phial thus prepared, on touching the phosphorus, and being suddenly drawn out, will with certainty be lighted.

SPIRIT OF SOAP FOR SHAVING.

Pound an ounce of fine castile soap, with about a quarter of an ounce of salt of tartar in a marble mortar; to which add gradually, half a pint of lavender water. Incorporate the whole well together, filter it, and keep the whole in phials, closely stopped. When wanted for use, let a few drops fall into a spoonful of water, and rub the mixture into a lather.—This will be found far superior to any common soap.

GENUINE FRENCH NOYAU.

Take nine pints of best colourless brandy; add to it a pint of orange-flower water, with six ounces of fine sugar, dissolved in another pint of brandy—infuse in this liquor for six weeks, whatever quantity of peach or apricot kernels may be judged to give it the best flavor. The sugar must be broken into small pieces, and dipped into water the moment before it is put into the infusion. Care being taken, and the directions exactly followed, the whole, after standing the proper time, is to be filtered through a cotton or flannel bag, when the process is completed for producing this delicious liquor.

FUSIBLE ALLOY—THAT MELTS AT 212°

Take eight parts of bismuth ; five parts of lead, and three parts of block tin.—Melt them together.

A VARNISH FOR COLOURED PRINTS OR DRAWINGS, TO GIVE THEM THE APPEARANCE OF OIL PAINTINGS.

Take Canada balsam, or balsam of fir, one ounce, and two ounces of spirits of turpentine ; mix them well together : Before applying this composition, the print or drawing should be well sized with a solution of ichtiocolla, or fish glue, and suffered to remain until perfectly dry ; the varnish should then be laid on carefully with a soft brush.

TO PRESERVE FENCES FROM THE WEATHER.

Let any quantity of tar be ground up with as much Spanish brown, as you like ; have your boards smooth, and lay the mixture on with a brush.

TO EXTRACT AN ESSENTIAL SPIRIT FROM ANY FLOWER.

Take any flowers you please ; put them into a clean glazed earthen pot, to the depth of an inch or more ; sprinkle over them a quantity of fine sea salt ; then another layer of flowers, and salt again, until your pot is full. Carry the pot to the cellar, and let

it stand for a month lightly covered—then strain through a piece of crape. Bottle it, and expose the bottles to the sun, and dew of the evening, or for four or five weeks, to purify. Then strain again, and bottle for use.

INDELIBLE INK—FOR MARKING LINEN.

This may be made by saturating any quantity of dilute nitrous acid, with silver; to which solution add an equal quantity of thick gum water, with a little lamp-black incorporated. Let it dry slowly, after being laid on with a pen.

PERMANENT RED INK—FOR MARKING LINEN.

Take half an ounce of vermilion, and a drachm of copperas; let them be ground together in a mortar, with a sufficient quantity of linseed oil, to give a proper degree of liquidity.—This ink, it is said, will resist the effects of all acids, as well as all kinds of alkaline salts. It may be made of other articles instead of vermilion, if a different colour is required, by substituting proper colouring ingredients. It may be used with types, a hair pencil, or even a pen—but in the latter case, it will be necessary to thin it still more than can be done with oil, by the addition of a little spirits of turpentine, so as to make it flow.

WALNUT CATSUP.

Take fifty green walnuts, beat them in a marble mortar, and steep for twenty-four hours in a gallon of good vinegar; then add cloves and alspice, of each, half an ounce; three or four onions, or shallots, and a little salt. Boil the whole, until one third has boiled away, then strain them by a strong pressure, filter them, and bottle the liquor for use.

A SOAP, TO TAKE OUT ALL KINDS OF SPOTS.

Take one pound of venetian, or white soap ; six yolks of eggs. and half a table-spoonful of common salt, ground very fine in a mortar. Incorporate these ingredients with a sufficient quantity of the juice of the leaves of white beet ; make the whole into small cakes, and dry them in the shade. To use them, wet the spotted part of the cloth with clean water, and rub the cloth on both sides, with the above soap thoroughly. Then wash the cloth in clear water, and if the spot has not disappeared, repeat the same operation,

COLOGNE WATER.

If you wish a large quantity, take twenty-six pints of spirits of wine ; seven pints of the spirits of rosemary ; four pints of common honey-water ; six ounces of the oil of Benjamin ; three drachms of the essence of orange flowers ; one ounce of the essence of cedar ; one ounce of the essence of lemons. Mix them, and add if you please, a little oil of rosemary.

COMPOUND SPIRITS OF LAVENDAR.

Take one ounce of the oil of lavender ; half an ounce of the oil of rosemary ; one gallon of spirits of wine, and two gallons and a half of strong brandy.—Mix these, and add three ounces of cinnamon ; three ounces of nutmegs, and two ounces of red sander's wood, cut into fine shavings—then add two ounces of cloves ; let it stand for a week, then strain for use ;

BALSAM OF SULPHUR.

Take one pound of flowers of sulphur, and oil of olibanum, four pounds ; boil these in a pot lightly covered, until the oil and sulphur are completely blended into the consistence of a balsam.

COMPOSITION FOR RENDERING BOOTS AND SHOES WATER PROOF, AND DURABLE.

Take one pint of boiled linseed oil ; two ounces of common bees wax ; two ounces of spirits of turpentine, and half an ounce of Burgundy pitch.—Let them be carefully melted together over a slow fire. With this mixture, new shoes and boots are to be rubbed either in the sun, or at a little distance from the fire, with a sponge or brush : This operation should be repeated without wearing them as often as they become dry, until they are fully saturated ; which will require four or five times brushing—by this, the leather becomes impervious to water. The boot or shoe, thus prepared, lasts much longer than common leather ; it acquires such a pliability and softness, that it will never shrivel nor grow hard, and in that state, is the most effectual preventative against colds, &c. It is necessary to remark, that shoes or boots, thus prepared, ought not to be worn, until they become perfectly dry and elastic ; as in the contrary case, the leather will become too soft, and wear out much sooner than it otherwise would.

SAPPHIRE WATER.

Take eight ounces of fresh made lime water, and two scruples of sal ammoniac, or salt of Hartshorn.—Mix them, and add four grains of fine verdigrise ; set them by the fire for twenty-four hours, and pour off the clear liquor,

ARTIFICIAL MUSK.

Take three drachms and a half, of concentrated, nutric acid, and drop it gradually and very slowly, on one drachm of rectified oil of amber, which last, is previously to be put into a wine glass. Be careful not to put in the acid too fast ; as in that case, there would be great danger. When this mixture is slightly agitated, it grows hot, and emits very offensive fumes ; against the inhalation of which, the operator should be on his guard. After having stood twenty-four hours, the compound acquires a resinous appearance. At the bottom of it, we find a stringy acid fluid ; and on the top, a yellow resin, resembling musk, in its fragrancy. This resinous matter must be repeatedly washed ; first in cold, then in warm water, until the acid taste is completely removed. By this process, we obtain a substance, which is equal in flavor, as well as in its medical properties to the genuine natural musk ; it is perfectly soluble in spirits of wine ; like other resins, it can be precipitated by water, and always retains the scent acquired by this simple chemical process.

To convert this substance into what is called the artificial tincture of musk, two drachms of resinous extract, must be dissolved in eight ounces of spirits of wine.

Emulsion of artificial musk, is made, by grinding in a mortar, ten or twelve grains of the resinous extract, with a few sweet almonds, whose outward dark coat, has been taken off ; dilute this paste, with five or six wine-glasses of simple water ; a common dose for children, of one or two years of age, is two tea-spoonfuls every three hours, and in proportion to older children.

CARMINE.

Take ten quarts of rain water that has been boiled, and become perfectly cool ; put it into a clean, glazed earthen vessel, which has a proper cover—let it simmer a little, but not boil ; then add one ounce of cochineal, finely powdered.

TO PROCURE FRESH FLOWERS IN WINTER.

Take in the spring or summer, a number of the finest buds of the flowers you wish to have.—They should be gathered, when just ready to open. Cut these off with a pair of scissors, leaving to each bud, a portion of the stem, about three inches in length—the end where cut off, is immediately to be covered with sealing wax, or some similar substance, to prevent the loss of the juices of the plant. As soon as the buds are somewhat shrunk and wrinkled each one must be folded up separately in a piece of clean dry paper, and deposited in a dry box, or drawer, where they will be kept without decaying. In the winter or whenever you wish the flowers to blow, the wax is to be cut off the buds, and these should, in the evening, be immersed in water, in which a little salt-petre, or common salt, has been dissolved. If exposed to the rays of the sun, on the succeeding day, they will expand with all their original fragrance and beauty.

COURT PLASTER.

Dissolve twelve ounces of gum benzoin, in twelve ounces of spirits of wine, and strain the solution. In another vessel, dissolve one pound of isinglass or fish glue, in two pints of rain water, and strain it; mix the two solutions in a deep glazed earthen jar, and let it stand until the grosser parts subside. When the clear liquor is cold, it will form a jelly; so that in spreading, it must be bro't to the fire to melt. This is sufficient to spread ten yards of silk, of half a yard in width.—The silk should be stretched on a frame, and the solution applied with a sponge or brush, ten or twelve times, allowing it to cool each time.

BATEMAN'S DROPS.

Take of gum opium, four ounces ; terra japonica, four ounces ; gum camphor, four ounces ; oil of aniseed, half an ounce ; salt of steel, a quarter of a pound, and common spirits, sixteen quarts.

SHOE BLACKING.

Take of ivory black, two ounces ; one ounce of gum arabic, dissolved in warm water ; two ounces of lump sugar, and the whites of two eggs—mix in a pint and a half of strong beer.

FRIAR'S BALSAM.

Take three ounces of benzoin ; two ounces of strained storax ; one ounce of balsam of tolu ; half an ounce of socotorine aloes, and one quart of rectified spirits of wine.—Mix them and let them stand by the fire for three days, and then strain for use.

DAFFY'S ELIXIR.

Take a pound and a quarter of pulverized jalap ; half a pound of senna leaves ; five ounces of juniper berries ; five ounces of the scrapings of guaiacum wood ; five ounces of the seeds of sweet fennel, and ten quarts of strong brandy. Mix, and after standing a few days, strain for use.

SECOND METHOD FOR THE ABOVE.

Take six quarts of spirits of wine ; a quarter of a pound of liquorice root ; two ounces of aniseed ; a quarter of a pound of the root of elicampagne : one pound of pulverised jalap, and one pound of white sugar. Mix them, and let them stand for a week and strain.

TURLINGTON'S BALSAM.

Take six ounces of peruvian balsam; half an ounce of gum storax; half a drachm of gum benzoin; two ounces of socotorine aloes; two ounces of angelica seed; two ounces of gum alibanum; half a drachm of gum guiacum; six ounces of gum myrrh, and one gallon of rectified spirits of wine. Mix them, and let them stand a week; then strain by pressure, through a coarse cloth for using.

TEETH POWDER.

The substances which are commonly used for cleansing the teeth, are highly injurious; being composed of some gritty substance, which by mere friction, wears away the enamel, or outward covering of the teeth, and though it may produce a temporary whiteness, infallibly hastens their entire decay.—If the teeth are very foul, let them be rubbed for a few days, with a piece of soft linen, dipt in a little salt and water. This will effectually remove all filth and dark appearances from them, but should not be too long continued. After the teeth are perfectly cleansed, use the following powder:—Take of Peruvian, or Jesuit's bark, one ounce; then take an equal quantity of good dry charcoal; grind them together in a mortar, to a fine powder; keep this powder in a bottle, well corked; use this powder daily, and it will keep the teeth clean, and will remove any scorbutic sponginess of the gums, and correct the most offensive breath; to prove the fact, let a piece of putrid meat, be thoroughly covered with charcoal powder, and it will, with certainty, lose its offensive smell. In cleaning the teeth, a brush, unless very soft, is always injurious, as it has a tendency to separate the thin part of the gum from the tooth—thereby exposing the bony part or root, to the air, which immediately causes more or less decay—the best instrument for rubbing the teeth, is a small piece of sponge, or fine linen, fastened to the end of a small stick.

GOLD LACQUER.

Take of Spanish annatto, two ounces; two ounces of shell lac; one ounce of gum mastic; one pint of rectified spirits of wine.—Mix them, and let them stand until all are dissolved.

SILVER LACQUER.

Take of creme of tartar, two ounces; of calamine stone prepared, two ounces; gum sanders one ounce.—Dissolve in half a pint of spirits of wine.

EAU DE LUCE.

Take of spirits of wine, one ounce; four ounces of spirits of Hartshorn; twenty drops of oil of amber, and ten grains of castile soap. Mix them, and let them stand a week.

FRIAR'S DROPS.

Take of gum guaiacum, half a pound; two ounces of salt of tartar; one ounce of the oil of sassafras; four ounces of balsam copayva; two ounces of Peruvian balsam; best chian turpentine, two ounces; two drachms of cochineal, and rectified spirits of wine, two quarts.

SMITH'S BEST BLACK INK.

Take of copperas, half a pound; gum arabic, half a pound; powdered galls, one and a half pounds; alum, two ounces; rain water, six quarts; vinegar, half a pint.

ESSENCE OF AMBERGRISE.

Take of ambergrise, two drachms ; twelve grains of musk ; two grains of civet, and four ounces of rectified spirits of wine.—Mix, and digest them.

WARE'S TINCTURE OF OPIUM FOR INFLAMMATION OF THE EYES.

Take of strained opium, two ounces ; two drachms of cinnamon ; one drachm of cloves, and mix them in a pint of white wine. Macerate them for a week, without heat, and then filter through paper.

BEAUME DE VIE.

Take of the bruised root of rhubarb, one drachm ; one drachm of socotorine aloes ; saffron, one drachm ; Balsam of tolu, one drachm ; half a drachm of salt of tartar ; one quart of pure water. Boil, so as to strain off eight ounces, and when cool, add two ounces of spirits of wine.

ESSENCE OF PEPPERMINT.

Take four ounces of oil of peppermint, and mix with one quart of spirits of wine—to this mixture, add of white sugar, half an ounce, previously broken into small pieces, and dipped in water.—N. B.—For the spirits of wine, substitute strong brandy.

CEMENT FOR BROKEN CHINA.

Take of isinglass, or fish glue, gum mastich, and venetian, or common turpentine, of each, equal parts ; dissolve the isinglass in a little boiling water ; pulverise the gums, and beat them well together in a marble mortar—if the turpentine is not sufficient to form a proper consistence, add a little more.

DR. MORGAN'S CURE FOR THE BOTTS, IN HORSES.

Take a table-spoonful, of unslacked lime, and let it be given with the water and feed of the horse, half in the morning, and half at night; continue this regularly for five or six days, and it will completely expel the botts.

ELIXIR PROPRIETATIS.

Take of powdered gum myrrh, two ounces; one and a half ounces of socotorine aloes; one ounce of English saffron, and one quart of strong brandy. Put the myrrh into the spirit, and let it stand by the fire three or four days, loosely corked.—Then add the saffron and the aloes. Let it stand two days, then strain it for use,

GODFREY'S CORDIAL.

Take one quart of molasses; twenty-five drops of the oil of juniper; twenty drops of the oil of sassafras; one ounce of elixir paregoric; one ounce of laudanum; brandy, one pint, and clear water one quart. Mix them, and they are ready for immediate use.—This medicine differs very little from paregoric, in its virtues—it is given to children in doses of a tea-spoonful at a time.

ESSENCE OF LEMONS.

Take of the oil of lemon peel, four ounces; mix this oil with a quart of rectified spirits of wine; shake the mixture well, and let it stand a day or two, when it will be fit for use.

ESSENCE OF LAVENDAR.

Take four ounces of the oil of lavendar, and one quart of rectified spirits of wine—mix them, and let the mixture stand twenty-four hours.

ESSENCE OF CINNAMON.

Take two ounces of the oil of cinnamon, and mix it with a quart of spirits of wine.

BEST AROMATIC BITTERS.

Take half an ounce of gentian root, cut into small pieces ; coriander seeds, and orange peel, of each half an ounce ; cinnamon, Virginia snake root and ginger, of each one drachm ; grains of Paradise and red sander's wood, of each one drachm ; spirits, either rum or brandy, three pints.

BITTERS No. 2.

Take of gentian root sliced, two ounces ; orange peel, one ounce ; ginger and cinnamon, of each half an ounce ; pepper, one drachm ; red sander's wood, three drachms. Mix them in three pints of spirits.

STOUGHTON'S BITTERS.

Take of gentian root sliced, two ounces ; dried orange peel, one ounce ; Virginia snake root, half an ounce ; cinnamon, two drachms ; spirits, one quart.—Mix, and let them stand for four or five days, and then strain for use.

EAU DIVINE.

Take of rectified spirits of wine, four pounds ; oil of lemons, and oil of Benjamin, each two drachms, and half a pint of orange flower water.—Distil, and add eight pints of pure water, and four pounds of loaf sugar.

MILK OF ROSES.

Take two ounces of loaf sugar ; half an ounce of oil of almonds, and a pint of rose water. Mix them well together.

HILL'S BALSAM OF HONEY.

Take of balsam of tolu one ounce and a half ; spirits of wine, one pint ; traumatic balsam, one quart, and half an ounce of Dragon's blood. Mix them together.

SECOND METHOD FOR THE ABOVE.

Take one quart of traumatic balsam, and dissolve in it half an ounce of Dragon's blood.

TURKISH GLUE—OR ARMENIAN CEMENT.

This glue, which will thoroughly unite pieces of glass, is thus made.—Dissolve five or six pieces of gum mastich, each the size of a pea, in as much spirits of wine, as will suffice to render it liquid ; in another vessel, dissolve as much isinglass, (fish glue,) previously moistened, and a little swelled with water, (though none of the water must be used) in French brandy or good

rum, as will make a two ounce phial of very thick glue, adding two pieces of gum galbanum, or ammoniacum, which must be rubbed or ground with the glue till they are dissolved. Then mix the whole with a gentle heat; keep the glue in a phial, well stopped, and when it is to be used, set the phial, after taking out the cork, in hot or boiling water.—It should be like strong carpenter's glue in consistence: The article to be cemented, must be gently warmed, on the application of the glue.

POMATUM.

Take four ounces of mutton tallow; one ounce of white wax, and two drachms of oil of lavender or oil of lemons. Melt all together over a gentle fire, and cast into moulds, or make it up in any form you please.

TO STAIN IVORY, BLACK.

Take of lytharge and quick lime, each an equal quantity; put them into a pan over a hot fire, and pour on so much rain water, as will not boil over; when the liquor boils, put in your ivory, and stir it well with a clean stick; when you see it take the colour, take your pan from the fire, and stir your ivory constantly, until the liquor is cold.

TO WHITEN IVORY.

Put a handful of bran and the same quantity of quicklime, into a clean glazed earthen pot with a cover, fill it half full of water, in which put your ivory or bone, and boil till all the greasy particles are destroyed,

STAINING IVORY, BONE, &c. RED.

Take one gallon of lime water, made by pouring on a quantity of quicklime, or burnt oyster shells; so much water, as when poured off, the clear liquor will be one gallon; add to this, half a pound of Brazil wood, cut fine; boil these together for an hour, and let them stand twenty-four hours. Then put in your ivory, bone, or horn, prepared first by boiling in alum water, and continue boiling till sufficiently coloured. If intended for crimson, it may be rendered more red by dipping it again in alum water.

ANOTHER RED, FOR WOOD, BONE, &c.

Take of cochineal, and red argil of tartar, each one ounce, finely powdered. Boil them gently in three pints of soft water for some time, and add two ounces of solution of tin; then put in your articles and boil till they are of as deep a colour as you wish—if you wish them only slightly stained, all that is necessary is to brush them slightly over while hot, until they are stained to your liking.

SOLUTION OF TIN, as mentioned above, is made in this manner.—Take six ounces of oil of vitriol, nine ounces of muriatic acid, and put them into a glass vessel that will contain double the quantity; in this, dissolve gradually four ounces of block tin; melt the tin and have at hand a basin of water; agitate it by giving it a sudden stir, and immediately pour into it the melted tin; it will thus be divided into small particles, and will of course, be more easily and quickly dissolved.—You must not put more than half an ounce of tin, into the acid at a time; and the solution may be promoted by a very gentle heat. As soon as one portion of tin is melted, add another, and so on progressively, until the whole is dissolved.

A FINE PERFUME.

Take two quarts of distilled rose water, and put them into a large jug, nearly filled with rose leaves;—stop the jug close with a cork, wax it, and cover it with parchment or a piece of bladder; expose it for a month, or even six weeks to the sun; afterwards pour off the liquor into another vessel, in which for every quart of liquor, add two grains of fine musk, and cork it well. In a week, it is fit for use.

SUPERIOR RED INK.

On four grains of best carmine, pour two ounces of caustic ammonia, adding twenty grains of the whitest and clearest gum arabic; let these remain until the gum is entirely dissolved. This ink, though more expensive than the common one, is said to continue perfect and bright in its colour, for forty or fifty years.

BLUE INK.

Make a solution, by mixing one ounce of finely powdered verdigrise, and half an ounce of cream of tartar, in three gills of water: This will make a fine blue writing ink, and will give to a piece of iron immersed in it for twenty-four hours, a beautiful green colour.

GREEN INK.

Put an ounce of finely powdered verdigrise, into a quart of vinegar, and after it has stood two or three days, strain off the liquid—or instead of this, use the chrystals of verdigrise dissolved in water. Then dissolve in a pint of either of the solutions, five drachms of gum arabic, and two drachms of white sugar.

RATAFIA.

Take two quarts of best French brandy; one quart of orange flower water; frontinac water, two quarts, and six peach kernels bruised; mix them together.

MIXTURE TO TAKE OUT SPOTS OR STAINS, OF MILDEW, INK, RED WINE, IRON MOULD, &c.

Mix an ounce of sal ammoniac, and an ounce of salt of tartar, in a quart bottle, and keep it for use.—Soak, and wash out in this mixture, the linen &c. thus stained, and after the colour is discharged, get them up in the usual manner, and there will remain no visible effect of the injury.

TO PURIFY WATER.

On long sea-voyages, or at a distance from wells and rivers, to render putrid water sweet, you have only to put into it, for every gallon of water, ten grains of calcined alum, and triple that proportion of powdered charcoal.—Both ingredients, unless immediately used, ought to be kept in glass stopped bottles.

OINTMENT FOR THE SCAB, &c. IN SHEEP—BY MR. STEPHENSON.

Rub together in a mortar, one pound of quicksilver, and half a pound of Venice turpentine, till the globules of the quicksilver disappear; then add half a pint of oil of turpentine, and four pounds of hog's lard, mixing the whole into an ointment. The process of applying it, is as follows:—Begin at the head of the sheep, and divide the wool with the fingers from between the ears, along the back, to the end of the tail, in a furrow,

until you can touch the skin. In the meantime, while this furrow is making, a finger slightly dipped in the ointment, is to be drawn along the skin, until it bears a blue stain on the skin and the adjoining wool. From this furrow, similar ones must be drawn down the shoulders and thighs, to the legs, as far as they are woolly ; and if the animal be much infected, two more should be drawn along each side, parallel to that on the back, and one down each side, between the fore and hind legs.—Immediately after being thus anointed, it is customary to turn the sheep among the other stock, without fear of the infection being communicated ; and we are assured by Sir JOSEPH BANKS, that there is scarcely an instance of a sheep's suffering any injury from the application.—In a few days, the blotches dry up, the itching ceases, and the animal is completely cured. We should, however recommend, on using this ointment, that the animal be housed a few days from the weather, if it should prove stormy or damp, a caution requisite in all cases, where mercury is used.

SHORT METHOD OF BLEACHING COTTON, THREAD, &c.

This mode of bleaching, which has lately been introduced at Strasburg, has hitherto been kept very secret.—From the operation being performed in so short a time as two days, and not requiring extensive works, (any out-house being sufficient) as well as from its being practicable at all seasons of the year, it will be found very beneficial, to those especially, who cannot afford the expense of a large establishment. Take two parts by measure of quicklime, and place it in the corner of any room, taking care that there is no wooden floor on the spot, or wainscoting where the lime is thrown ; cover the lime gradually, with ten times the quantity of sifted ashes, gradually sprinkled over it ; sprinkle with water, lightly, every covering of ashes that is laid on, and be careful to fill up with wet ashes, the crevices that are constantly produced by the heat, and motion of the mass.

When the lime is slacked, and the mass thoroughly cooled, make from it a lie, with clean rain water ; observing by trial, whether it be too caustic, or not.—Carefully untwist the skeins of cotton, tie them in parcels, and immerse them cold, in this alkaline lie, in which let them remain for six hours ; turning them about occasionally. The lie when exhausted, is generally thrown away as useless ; but it might, perhaps, be better employed, in slaking a fresh quantity of lime. After taking out the skeins, wash them in a running stream. Hosiery, stockings, gloves, &c. should be slightly tacked together, to facilitate the manipulation. After washing, boil the articles in a bath of the same kind of lie, in which soap has been dissolved, in the proportion of six pounds, to every sixty-six pounds of cotton thread ; the lie should be sufficient to cover them : Let them boil for twelve hours, taking care that the copper, in which they are boiled, be thoroughly cleansed after each operation.—While it is boiling, the cotton should be almost constantly turned, both to prevent that part which touches the bottom from being burnt, and to expose every part equally to the action of the liquor. On being taken out, the cotton must again be washed as above mentioned. It is next to be boiled in water without lie, but the same proportion of soap, as before directed. The boiler being well cleaned, a sufficient quantity of rain water is to be put into it, and the goods to be boiled and turned as before, and during the same time. The cotton is then washed for the last time, and hung out in the air, or laid on the grass to dry. In cold weather, it may be dried in-doors : It is to be observed, that the quicker it is dried, the more beautifully white it becomes. In the whole process, care must be taken not to entangle the thread,

PORTABLE SOUP.

This composition, which has of late become of such general use, in public hospitals—on board ships of war, and merchantmen—bound on long voyages, is indeed valuable in such situations, from its durability—

the small compass it requires, and presenting at any time required, a rich and nutritious dish. It is thus prepared :—Take a shin of beef, a knuckle of veal, and a ham-bone, with a little of the lean remaining on it.—Break all the bones, and put the whole into a vessel, proper for boiling, with barely sufficient water to cover the meat. Then put in Cayenne pepper, but no salt—a little mace, and a couple of onions, with, or without any other vegetables or spice, according to your liking. Let it boil slowly for three hours, or until the meat has boiled to pieces. Strain off the liquid, and leave it in a cool situation until it becomes quite cold ; then taking away the cake of fat on the top for other uses, pour the soup into a saucepan, and set it over a smart fire, where it must be kept boiling and constantly stirred for six hours. After this, pour it off, and let it stand in a cold situation till the next day ; then put it into a large bowl or deep pan, and put the pan containing it, into another of water, and set them on the fire to boil—stir the soup occasionally, until it becomes quite thick and glutinous. This being properly attended to, the soup will be made, and has only to receive the intended form of cakes, which may be done by pouring it into shallow tin vessels, or common saucers ; observing to make the cakes thin. When these cakes are cold, they should be spread on clean flannel, and laid out to dry, till rendered hard by the sun, or other gentle heat. While drying, they must be frequently turned, and on putting them up, a piece of clean writing paper should be laid between them, and they should, if convenient, be packed in tight tin boxes. One small cake, when dissolved, by stirring in a pint of boiling water, with the addition of a little salt, will make a bowl of rich and palatable soup, in five minutes or less, and a good gravy for poultry, &c. may, by the same means, be speedily made. Portable soup, in well hardened cakes, will keep a great length of time, and in all climates—being in fact, a kind of glue.

TO RESTORE THE WRITING ON DAMAGED PARCHMENT, DEEDS, &c.

The following mixture, it is asserted, will make writing, that has been obliterated, faded or sunk, either on paper or parchment, immediately legible :—Bruise two or three nutgalls, infuse them in half a pint of white wine, and let the bottle stand for two days in the sun, or other equally warm situation ; then wash that part of the paper or parchment, where you wish to have the writing restored, with a sponge or soft brush, dipped in the vinous solution, and if it be sufficiently strong, the purpose will immediately be answered. Should that not be the case, its power must be increased by an additional quantity of galls, and perhaps in some instances, stronger heat, and even stronger wine, may be necessary.

VEGETATIVE LIQUID FOR PROCURING FLOWERS IN WINTER.

Dissolve gradually, in a glazed, earthen, or glass vessel, three ounces of salt-petre, one ounce of common salt, and half an ounce of salt of tartar, in a pint of clean, fresh rain water. When the solution is completed, add half an ounce of loaf sugar, and filter the whole through a double flannel bag, or blotting paper, and keep it bottled for use. Into each flower glass, filled previously with rain or river water, are to be put eight or ten drops of this liquid. The glasses must be kept constantly full, and the water renewed every tenth or twelfth day at farthest ; to which must be added the above-mentioned quantity of the vegetative liquor. To insure complete success however, the glasses ought to stand on a mantle, or chimney-piece, where a fire is regularly kept in cold weather. The fibres of the roots, must of course, always imbibe the fluid, and if well managed, a fine succession of flowers such as crocuses, tulips, hyacinths, &c. may be thus continued, during the severest seasons.

TO PRESERVE FRUIT TREES, FROM
THE EFFECTS OF FROST—FROM
HARRIS'S ENCYCLOPEDIA.

As the blossoms of fruit trees are more particularly affected by the early frosts, we shall communicate the following simple and easy methods of securing them :—

1. A rope is to be interwoven among the branches of the tree, and one end immersed in a pail of water, standing at a little distance from the trunk of the tree. This rope, it is said, will act as a conductor, and convey the effects of the frost from the tree, to the water; and the water contained in the pail, thus situated, will become frozen—when another, standing by the side of it, will not be at all affected by the frost.

2. According to M. MALLET, the early hoar-frost may be rendered harmless in its effects, by pouring fresh spring water on the trees and vines, thus covered, before the sun rises. When mist or dew, attends a frosty night, but has not preceded it, DR. DARWIN, supposes that a hoar frost may be less injurious than a black frost, because the case of ice, on the buds of trees, or on young grass being instantly produced, covers them with a bad conductor of heat, and prevents them from being exposed to so great a degree of cold, as is occasioned by the continuance of a black frost, without any mist.

3. An anonymous foreign writer suggests the practice of depriving, towards the end of autumn, those fruit trees of their leaves, which are exposed to injury from winter frosts; and adds, that some precaution is necessary in this operation, to save the buds, which are by nature destined to unfold in the succeeding spring, from any external injury. Yet such defoliation ought not to be undertaken with all trees, at the same period of time, as those which possess a greater

abundance of sap should be allowed to keep their leaves to a later season than others, having a less portion of vegetable juices. In order to recover and preserve such trees as have evidently been injured by severe winter frosts, a gentleman has lately recommended the following easy and expeditious remedy :—For the success of this, he appeals to repeated experience. When a tree has suffered from intense cold, he recommends, to make longitudinal incisions in the bark, extending the whole length of the trunk, on the north, west, and east sides, but never in a southern direction. As the east winds are very dry and piercing, very few and superficial slits are to be made in that direction. This operation ought to be performed in the month of March, before the first sap rises, and repeated in June, while the second sap ascends ; but always so managed, as that the outermost bark, be only divided ; for two deep an incision, though harmless in the spring, might be attended with fatal consequences in the heat of summer. In trees however, which are thoroughly frozen, it will be useful to make deeper gashes, in order to give vent to the stagnant fluids, and promote their circulation. These gashes should be directed against the centre of the tree, and drawn in a straight line downwards ; for in the contrary case, the bark is apt to separate into chinks ; afford shelter for vermin, and eventually frustrate the attempt. By a strict attention to these rules, it will be found that apple-trees in particular, when slit in every direction, (except the south side,) retain all their bark ; others, which had undergone but half of the operation, were but partially preserved—and such as had received only two cuts, retained only the adjoining portion of the bark, from which, however, new shoots were produced. This simple method, is farther attended with the additional benefit, that while contributing to the growth of the tree thus affected, it tends to prevent the decay of those, which have in the preceding year, been injured by the depredations of vermin, and the subsequent stagnation of their fluids.

TO REMOVE FRECKLES FROM THE FACE.

The following directions, are taken from the Rev. Mr. HARRIS's minor Encyclopedia :—

Put into a phial, any desired quantity of lemon-juice, and mix with the juice, a small quantity of powdered borax, and a little refined sugar. Let it stand for eight days, and then apply it frequently to the freckled part, by means of a sponge, or soft rag.

TO PRESERVE THE HAIR.

The common cause of the hair's falling off, is, in general, but little known. It has of late been discovered, that in most cases, a small worm at the root of the hair, occasions the complaint. To destroy such worms, the following mixture is recommended :—Take two ounces each, of rosemary, maiden-hair, southern-wood, myrtle-berries and hazle-bark, and burn them to ashes on a clean hearth, or in an oven ; with these ashes, make a strong lie, with which, wash the hair at the roots, every day, and keep it cut short for some time :—This has been alledged to be an effectual cure. The celebrated wash, for thickening the hair, commonly called the Dutchess of Marlborough's lotion, is thus prepared :—Distil as coolly and slowly as possible, two pounds of honey, a handfull of rosemary, and twelve handfulls of the curlings or tendrils of grape-vines, infused in a gallon of new milk, from which about two quarts of this water is obtained.

It is said by some, that the sap of the common wild vine of this country, which may be obtained in great quantities, by cutting the vine in the spring, at the time of its ascension, will have the same effect.

INSTRUCTIONS FOR BROWNING GUN BARRELS.

Take of nitric acid, or aqua-fortis, and sweet spirits of nitre, each half an ounce; one ounce of alcohol, or spirits of wine; blue vitriol, two ounces, and one ounce of tincture of steel. Mix these together, after having previously dissolved the vitriol in a sufficient quantity of water, to make one quart of the whole mixture. Previous to commencing the operation of browning the barrel, it is necessary that it should be well cleaned from all greasiness and other impurities, and that a cork, or plug of wood, be put into the muzzle, and the vent also well stopped. The mixture above-mentioned, is then to be applied with a clean sponge, or soft rag; taking care that every part of the barrel, be equally covered with the mixture.—The barrel must then be exposed to the air for twenty-four hours, after which exposure, it must be rubbed with a hard brush, and then with a rag, to remove the incrustation that will be found to have formed on its surface. This operation must be performed a second, and in some cases, even a third time; when the barrel will become a perfectly brown colour. It must then be wiped clean, and immersed in boiling water, in which a small quantity of ashes has been put, in order that the alkali thus formed, may destroy the action of the acid upon the barrel, and the impregnation of the water, by the acid, neutralized. The barrel, when taken from the water, after being perfectly dried, must be rubbed smooth with a burnisher of hard wood, and then heated to about the temperature of boiling water. It will then be ready to receive a varnish, made of the following materials—viz :—One quart of spirits of wine; three drachms of Dragon's blood, powdered, and one ounce of shell lac bruised. After this varnish is perfectly dry upon the barrel, it must be rubbed with the burnisher, to give it a smooth and glossy appearance.

TO REPAIR, AND RETAIN THE BROWN UPON THE BARRELS.

When the barrel is much rubbed from use, a little oil of vitriol may be applied to it, and then it must receive the treatment that it has undergone in browning; care being taken to deaden the action of the acid, by means of boiling water. When brown barrels are in constant use, the brown may be continually repaired, by means of the application of vinegar, which should remain on the surface for a day, and then be well washed, with boiling water.

If this operation be repeated monthly, a barrel that has been properly browned in the first instance, will continue in a perfect state for many years.

TO MAKE MALT.

As we have in another part of this book, given directions for brewing malt, it is proper here, to give some directions for making it, as the article is oftentimes difficult to be procured. For the purpose of malting, barley is considered as the best grain. The quantity of grain which is intended to be malted, must be steeped in any convenient vessel, for twenty-four hours, or longer, if the weather be very cold:—The grain will then be much softened, so that it can almost be crushed, when taken endwise, between the fingers; it should never be softer than this:—In steeping, the most convenient vessel will be a hogshead or barrel, according to the quantity of the grain. In this barrel, there should be bored a hole as near as possible to the bottom; after putting in the tap, it must be laid on a wisp of hay, covered with a brick, or some heavy substance, to confine it, in order to prevent the grain from escaping, when the water is drawn off. After being properly steeped, the

grain must be taken from the barrel, and thrown in a heap on the floor. In a few hours, it will begin to heat, and as soon as small white points appear on the ends of the grain, it should be well turned over and spread equally to the depth of six or eight inches, in a flat heap, until the shoot of the grain, is nearly as long as the kernel. This is the great criterion of good malt; for if the shoot, progress only half the length of the grain, it is only half malted; and if it proceeds beyond the length of the grain, the substance of the grain passes into the shoot, which is lost in drying, and the grain is left exhausted of its saccharine properties. In malting, it is of the greatest importance to turn the grain as often as the under part becomes warm, in order that every part may grow equally, and if it become too dry, it must be sprinkled with water. In very severe weather, it is sometimes necessary to spread a coarse blanket over the grain, to prevent its freezing. After it has attained the stage, above described, it is to be laid on the kiln, and slowly dried. Where small quantities are made, merely for family use, it may be dried by being spread on a board, and placed in an oven from whence the bread has been taken, observing carefully, not to parch it.

CLEANING OF LEATHER—FROM HARRIS'S ENCYCLOPEDIA.

Take equal quantities of soft soap, and the ashes of grape vines; let them be well mixed together, and add a small quantity of tartar and burnt alum in powder. These articles should be thoroughly incorporated, then formed into balls, and laid by in a dry place for use. With these balls, the spots on leather, such as boot-tops, &c are to be carefully rubbed, and it is said, they will entirely disappear.

TO CLEAN GOLD LACE.

We are informed by the Rev. MR. HARRIS, that gold lace, when tarnished, and even after having entirely lost its yellow colour, may, except the metal be worn from the threads, be perfectly restored, by gently rubbing it with a soft sponge dipped in warm spirit of wine.

TO CLEAN PLATE.

Take three or four small pieces of whiting, and crumble them to powder, the finer, the better; then a tea-spoonful, or more, each of spirits of wine, and camphor; half an ounce each of spirits of Hartshorn, and spirits of turpentine; a small quantity of rose pink, and half an ounce of quicksilver; (the quicksilver and a little turpentine must be first rubbed together, until they become of the consistence of a salve.) The whole is then to be formed into balls and dried. It is to be applied to the plate, by means of a soft piece of leather, which will become better for use.

FREEZING MIXTURES—FROM HARRIS'S ENCYCLOPEDIA.

When a body passes from a solid, to a fluid state, the absorption of heat from that body, (the which is universally allowed, causes the fluidity,) produces a sensible degree of surrounding cold. A very cheap, and easy experiment will manifest this fact:—Take equal parts of salt-peter, and sal ammoniac, finely powdered, and upon three ounces of this mixture, pour four ounces of spring-water, and it will be found that the sudden dissolution of these salts, will render the water so cold, as to sink a thermometer, plunged into it, thirty-six de-

grees. As, therefore, it is easy, even in summer, to procure spring, or pump water, at the temperature of fifty degrees, the addition of these salts, will reduce that temperature to fourteen degrees, which is sufficient to freeze the water of a phial plunged into it, into one complete mass of ice.

Another freezing mixture, which is still more powerful, may be made, by adding to pounded ice, or snow, a quantity of common salt; the salt is of a temperature above freezing, but the ice or snow, having a stronger attraction than the salt, for the caloric it contains, will absorb the latter; the ice or snow being thus rendered fluid, will dissolve the salt. From both these effects, a great quantity of heat will be absorbed, and consequently, the mixture will be colder than either the snow or salt separately, and will freeze very powerfully, any fluid, with which it is brought in contact.

WHITE LEAD.

White lead is a powder, formed by the union of lead, with oxygen gas; undergoing the same operation as when the metal is made to effervesce, with the nitric acid. It is prepared, by placing a vessel containing vinegar, in a moderately warm place, over which, thin plates of lead are to be suspended, so that the vapour, arising from the vinegar, may circulate freely around the plates of lead. A white powder settles in the course of two or three weeks, on the surface of the metal, which is to be scraped off, and the lead again suspended in the same manner, until it is entirely corroded. This powder is the white lead; care must be taken to prevent, as much as possible, the fine particles of dust, from settling on the skin and lungs of the workman.

RED LEAD.

Red lead, is a composition consisting of eighty-eight parts of lead, and twelve of oxygen gas. Its preparation is as follows :—A quantity of lead is first burnt in a furnace, till it is converted into a kind of a lytharge, being constantly stirred with an iron rod, while it is melting. It is then to be ground to a fine powder, after which, it is again to be put into the furnace, and stirred as before ; when it assumes, first, a blackish hue, then a yellow cast, and at length, becomes of a deep red colour. While this operation is performing, care must be taken to keep the fire at a certain heat, in order to prevent the matter from adhering and running together. The genuine quality of red led, may be ascertained by the brightness of its colour ; and as it is frequently adulterated, such fraud may easily be detected, by mixing equal quantities of the suspected article, and charcoal dust, in a crucible, and placing the whole over a fire, sufficiently hot to melt lead. When it has continued for some time over the flame, it must be removed ; and when cold, stricken against the ground. Thus the red led will be reduced to its metallick state, and when freed from the charcoal, its diminished weight will show the proportion of adulterating matter.

ON THE

RECTIFICATION OF

LIQUORS,

AND THE

IMITATION OF FOREIGN SPIRITS.

FROM HALL'S PRACTICAL DISTILLER.

IN the rectification of liquors, the object is to divest them of any bad taste or smell, which they may have accidentally acquired, as well as that property which gives to each kind its peculiar flavor. It is well known, that all spirit is radically, the same; and the taste experienced in the different kinds, which are the objects of commerce, is universally acquired from the subject, from which they have been distilled. Hence, the flavor of rum, brandy, whiskey, &c. except in the case of gin, which derives its peculiar flavor from an article added to the spirit—viz: the oil of juniper, or juniper berries, during the time of distillation. To prove the truth of the above facts, let any kind of liquor be rectified, as hereafter recommended, and repeatedly distilled, and it will be found to have become spirits of wine, or the alkohol of the Druggists; that is, spirit in its most condensed form, equally devoid of any peculiar taste or smell, and to which may be given by art, after being reduced to the desired point by water, any flavor for the

imitation of the spirit desired. To distil the spirit, and render it as high as above-mentioned, is entirely unnecessary, and even injurious, on account of the loss sustained by evaporation, and the simple process mentioned below, answers every purpose of the dealer in liquors; and spirits above proof, ought not to be used in this manipulation, for the reason above-mentioned. The scarcity and high price of foreign liquors in the United States, and the quantities of grain annually raised, has led to the erection of numerous distilleries; the liquor produced from which, is compared to foreign liquors, is so much more in quantity, and indeed, so inferior in quality, that the juice of the one, is far above that of the other; and hence, if the dealer in liquors, can from a barrel of whiskey, and a barrel of rum or brandy, make two barrels of the last-mentioned liquors, the advantages are obvious. This may easily be done.—Many unskillful and awkward attempts have indeed been made by ignorant operators, who having received some intimation that such things had been done, but being totally unacquainted with the process of rectification, have merely mixed common whiskey with a portion of the foreign liquor they intended to imitate, and the result not answering their expectations, have wondered at their want of success. Hence, the disgust that has arisen against what have been called imitation liquors; but let the proper steps be pursued and care taken, the best judges cannot detect it; for in fact, with the addition of the proper ingredients, the whole liquor becomes that which is wished to be imitated. We have said above, that every liquor obtains its particular flavor from the subject from which it has been distilled.—This flavor consists in an oil which rises in distillation with the juices of the vegetable, and is held in solution by the spirit obtained in distillation. The oil from the grape, gives the flavor to brandy; that of the cane, to rum, and the nauseous taste, so much complained of, in our common whiskey, is generally allowed by distillers themselves, to proceed from the oil of the rye or other grain, with which such liquor has

been distilled. Yet this nauseous spirit, when distilled a second time, with the addition of charcoal, comes out perfectly pure, and is by many judges of liquors, preferred to any other spirits; and if rectified, cannot be distinguished from rum or brandy, that has undergone the same process; and upon these principles depends the whole art of imitating foreign liquors. From the principles above laid down, it is necessary to mention, that in mixing a gallon of rectified whiskey, or any neutralized liquor, with an equal quantity of the liquor intended to be imitated, there is wanting half the quantity of essential oil, that such a mixture ought to possess. West-India, contains so much essential oil, that an equal quantity of rectified whiskey added to it, cannot be detected; and in the opinion of many good judges, the rum is improved by this addition, as the spirit added, tends to hold the essential of the rum, in a more perfect solution. In French brandy, the difference cannot be perceived by the smell, but some say, that it wants, when thus mixed, the full smooth taste, that distinguishes cogniac.—In this case, the remedy is easy. It is only to add to the mixture, some substance that will supply the deficient quantity of essential oil. For doing this, directions will be hereafter given.

In the year 1802, the Rev. **BURGISS ALLISON**, of New-Jersey, obtained a patent for “improving spirits,” and in 1803, made an improvement in the application of the principle of rectifying or improving spiritous liquors. Although Mr. **ALLISON**’s process may contain some peculiarities that might entitle him to a patent right, yet it appears that the discovery of his principal agent, in freeing liquors from their essential oil, had some time before been discovered by European chemists.

The substance which Mr. **ALLISON** advises, is the same that all rectifiers of spirit now use—viz:—charcoal; as his process is, indeed very correct, we shall insert it, observing however, that as a patent, his directions must not be exactly followed, unless a right is procured from him, and then add a process, perhaps more advantageous.

MR. ALLISON'S PROCESS.

Procure a quantity of good maple or chesnut charcoal, taking care to get such as has not been exposed to the rain, or heavy dews; let this be ground as fine as possible, and at all times kept perfectly dry; next get a proper kind of vessel; for instance, a half hogshead, which ought to be made as smooth as possible. In this, there must be fitted very nicely, a second, or false bottom, about four inches above the other, perforated with as many holes as can conveniently be made with a very large gimblet; a hole must then be made between the true and false bottoms, for the purpose of drawing off the liquor as it becomes rectified. The cask must now be placed in a firm position, so that a barrel will stand under it, to receive the liquor. Two pieces of flannel, cut to fit very exactly, must now be laid on the false bottom. Then in another tub, mix, or rather moisten well a quantity of charcoal, with a portion of the liquor to be rectified. Strew this paste or mixture, closely over the flannel, to the thickness of about an inch, so that no crack or crevice be left; it is then ready to receive the liquor to be rectified; but to avoid disturbing this paste by pouring on the liquor, it will be advisable to cover it with a piece of gauze, and also to put into the tub, a piece of board, on which the liquor should be gently poured. This tub so prepared, is now capable of rectifying three hundred gallons, without being removed—to do which, proceed as follows:—In another tub, placed along side of this, mix with the quantity of the liquor to be rectified, as much charcoal as will be found necessary to deprive it of its peculiar flavor, which will be about one eighth; according however to the quality of the charcoal, and the quantity or strength of the essential oil to be destroyed. After standing a few minutes, this is now to be poured gently into the filtering tub until it is full; the liquor will soon run through, and after the first quart, will be found perfectly pure and tasteless. By pouring on the liquor too fast at first, it will sometimes run down the sides of the tub, and by

blackening the lower part of the cask, render it unfit for the operation, until cleaned ; to avoid this, it will be better to pour in about four gallons of liquor, mixed with a larger proportion of charcoal, than necessary ; when this runs perfectly pure, the cask may be filled without danger of accidents, twice, every day. After the process has been continued for some days, the cask becomes nearly full of charcoal, and cannot be any longer used until emptied ; but this charcoal, has retained a quantity of spirit—to extract which, water must be poured on above, so long as any spirit remains : a part of the spirit runs out of equal strength with what was used ; it however gradually becomes weaker, until there is nothing but water. The weaker part may be distilled, (or reserved for reducing high proof liquors.)

• Such is the method recommended by Mr. ALLISON, but in the opinion of many distillers, he has omitted an essential article—viz : sand The ensuing directions, were obtained from a gentleman long acquainted with this branch of business, whose process is, in many points, far superior to that of Mr. ALLISON's, for the following reasons :—Where charcoal is used only by itself, its buoyancy and lightness of texture, renders it liable to rise to the surface of the liquor ; with this fact, every distiller is acquainted ; and as the liquor to be rectified, settles towards the bottom of the cask, Mr. ALLISON, himself, mentions that the finer particles of the coal, are apt to descend with it, blackening the liquor, and thereby rendering it unfit for sale. The use of sand, entirely relieves us from this difficulty, being so ponderous as to sink in any fluid ; it forms at the bottom, a firm and dense bed, through which, nothing but a clear fluid can pass, and which effectually detains the finest particles of the coal. Let then a cask be made, according to the above directions, with a false bottom, covered well with a double flannel, and in the first place, lay over the flannel a layer of fine sand, that has been repeatedly washed, to free it from any salt, or other soluble matter that may be mixed with it. This caution is particularly necessary, where sand, taken

from a salt beach, is used ; over this layer of sand, a layer of powdered charcoal should be spread to the depth of an inch and a half ; then another layer of sand, then a thicker bed of charcoal ; observing always that the uppermost layer should be of sand. On the uppermost layer of sand, a single piece of flannel should be laid, cut into a circular form, so as nearly to fit the inside of the cask, and indeed, made rather longer, in order that a hoop, which should be previously prepared for the purpose, may be pressed upon the flannel, and confine it on all sides of the cask ; a small piece of board or shingle, should then be laid on the flannel, and the whole pressed down ; the liquor to be rectified, must be gently poured on the shingle, until there is a sufficient quantity in the cask ; in this case, the sand detains any slimy or mucilaginous matter that the liquor may hold in solution, and the absorbent qualities of the coal, effectually frees it from the essential oil. It may be proper to mention, that in this operation, nothing should be used that can give any kind of flavor to the spirit ; the casks used, ought to be of well-seasoned oak, and the false bottoms, and all the wood used in the process, of the same material.

IMITATION OF FOREIGN LIQUORS.

By the process of rectification, above detailed, the operator will become in the possession of a perfect pure and tasteless spirit, to which any flavor that may be desired, can easily be given, by the application of the proper ingredient, or use of the essential oil. The usual method, is to mix one gallon of the brandy or spirit to be imitated, with two gallons of the rectified spirit.—The proper proportions, however, must depend upon the purity of the rectified spirit, and the relative flavor of the brandy, or other spirit to be imitated ; as the greater the quantity of the essential oil it may possess, the smaller proportion will effect the purpose. Much then, depends upon the quality of the ingredients ; and it is requisite, that the operator be a man of correct taste, to

be able, properly to apportion them. But as has already been mentioned, all spirit is radically the same, receiving its peculiar flavor, from the presence of an essential oil ; a due quantity of which, is necessary ; it is evident, that no attempt at imitation, can be completely successful, without having the due portion of essential oil. Thus, although a mixture of one gallon of French brandy, with two gallons of rectified spirit, will smell exactly like brandy, yet there will be a deficiency of the essential oil, which will however, be detected only when mixed with water, and by one accustomed to the full, luscious taste, given by the essential oils of Bordeaux, or Cogniac brandy. An ingredient, therefore, possessing the flavor of the brandy, is here wanted, to supply this deficiency. It is obtained in England, by fermenting dried wine lees, and extracting therefrom, a spirit strongly impregnated with the essential oil, of which a sufficient quantity is added to the rectified spirit, to give the desired flavor.

These lees may be imported from France ; but the American distiller should be careful to have the particular kind designated, lest he may attempt to make Cogniac brandy, from Bordeaux lees.

A spirit may also be obtained by fermenting raisins with water and a small quantity of sugar, that will be found highly serviceable.

Another method is to scorch, or partially burn, a quantity of prunes, and infuse them in the neutralized liquor ; a few drops of sweet spirits of nitre being added, and about one eighth part of strongly flavored brandy, renders the imitation very complete.

OF COLOURING LIQUORS.

Although this branch of business, is generally considered as of no advantage to the manufacturer of merely gin, or whiskey ; yet it is to be observed, that to a barrel of whiskey, if there be added a double-handful

of parched, or burnt wheat, the flavor will not only be improved, but it will receive the appearance of being older than it really is.

Those who wish to make imitation rum or brandy, may color with brown sugar, highly burnt, or boiled in an iron vessel. The quantity necessary, will depend upon the quality ; and the person using it, must depend on his own discretion. A quantity of oak shavings, digested for some time in spirits of wine, will form a dilute tincture of oak, which in reality, is the basis of the color of French brandy. This may be used for coloring spirits, instead of burnt sugar.

Gin and whiskey, when old, acquire a slightly yellow appearance, probably from remaining long in the cask. This colour may be given by adding to the liquor a very small quantity of tincture of turmeric ; the tinge should be very slight.

CONCERNING WINE AND CIDER.

There is such a similitude between wine and cider, that they are frequently mixed, and sold as wine ; and indeed, a great quantity of cider is now sold for wine, without containing any of the latter—the management of both, should be alike from the press, till they are completely fit for use. Body, fermentation, flavour and cleanliness, are all they require from our hands, to render them complete, and with a little timely attention to these material points, we need not ever fail of success ; but without a timely and due attention to these points, we are nearly as certain to fail in the attempt.

Wine is the juice of the grapes, fermented—before fermentation, it is called must—in this state, it is composed of water, sugar, aroma (which is the essential oil of the grapes, and gives to the wine all its smell) and in abundance of tartar, (which is the salt of the grapes, and gives to wine all that rich acid, in which it differs from cider in taste) While sweet from the press, this tartar is held in solution by sugar, as well as the watery

part of the liquor; but in the act of fermentation, the sugar changes into spirit (alcohol) which cannot hold tartar in solution, and which, when collected with a still, is called brandy; as water cannot dissolve more than a certain portion of tartar or any other salt, all the superfluous quantity of tartar flies off, adheres to the sides of the cask, in form of a salt, is scraped off and sold in the shops as crude tartar—the same substance refined, is called cream of tartar, and contains the same properties as the crude. During the act of fermentation, as the sugar becomes decomposed, all that part of the carbonic acid which it contained, and which does not unite hydrogen to form spirit, escapes in the form of gas, (fixed air) diffuses itself through the whole mass of the liquor, and gives it that lively and agreeable taste and sparkling appearance, which is to be found in good cider. Therefore, those two acids (the tartaric and carbonic) with the water, spirit and essential oil of the grape, being thoroughly incorporated by the act of fermentation, compose that delicious beverage, called wine.

Cider, is the juice of apples; when new from the press and sweet, it is composed of water, sugar. and aroma, (essential oil of apples, which gives it all its smell) but no tartar, or if any, very little—and in this article only, it differs from wine in taste. Sugar, (no matter from what vegetable it is produced) always produces the same result, when decomposed by fermentation—it always produces carbonic acid and spirit, and if properly managed, will impregnate the liquor with both—but as apples generally produce less sugar than grapes, the cider generally contains less body (spirit) than wine. There is a difference in flavour, between the essential oils of the apple and grape, but less than is generally imagined, so that if the grosser particles of the oil of the apples be not permitted to impregnate the cider, the finer fragrance of the oil is useful in the formation of artificial wine, and in a great degree resembles the oil of some of the grapes. It is from this reason, that some of the Spanish brandy, is not far different in flavour from our best made cider brandy.

From a knowledge of the above facts, you may, from common new cider, make an excellent imitation of the common wines—say Lisbon, Teneriffe, Sherry, &c. by impregnating your cider with tartar (which will give it the taste) and the best of brandy (which will give it the smell) of wine and the deficiency of body, while the act of fermentation will incorporate them all thoroughly together, and by drawing it off before the scum falls, (as it is that which gives it the tincture of rotten apples and gross oils) you may have only the finer fragrance of the apples left, to communicate any apple or cider flavour to the wine.

THE METHOD OF MAKING A HOGSHEAD OF WINE, FROM NEW SWEET CIDER.

Take about ten pounds of clean crude tartar, pound it in a mortar and dissolve it by boiling a few minutes in three or four gallons of sweet cider, in a clean copper, or brass kettle, taking care not to smoke it; then throw it while hot, into the hogshead of new sweet cider, and stir it perfectly with a stick; put into the cask about from five to ten gallons of good real imported brandy, according to the quality of the cider, or the strength of the wine required to be imitated, and stir it well again, let it stand to ferment, till the scum on the top becomes very much cracked (which is an indication of its intention of falling) then rack it off before the scum falls—to procure a fair scum, the cask should not be quite full; clarify your wine in the usual way, either with isinglass or milk, or eggs and milk well beaten together—and it may be sold for the common Lisbon, Teneriffe, or Sherry or other wines—its imitation will vary a little, according to the quality of tartar and flavour of the brandy you give it.

In our commercial cities, the better wines are adulterated with inferior of the same colour, and nearly as possible the same flavour—for example: Madeira wine is generally adulterated with Teneriffe, Sherry or Lis-

bon wines, and they with cider ; the deficiency of strength is generally made up by adding brandy, or purified cider spirits.

There are two principal reasons for wine or cider becoming sour—the one is a deficiency of body (spirit) and the other is the neglect of clarification.—The first may be prevented by putting in spirits of any kind ; but care should be taken not to introduce any spirits that will injure the flavour ; and when convenient, we should use a spirit that is made from a fruit containing seeds, as it will be more natural to the liquor ; it having been also made from seed fruit, (all this class of spirits dissolve flesh, whereas all other kinds preserve it.) In the second case, all mucilagenous, feculent, or other turbid matter, which we see floating in the liquor, acts as a kind of leaven or yeast, to promote fermentation ; but even newly made, and sweet cider may be so clarified, as to become difficult of fermentation.

THE METHOD OF RENDERING SOUR WINE OR CIDER, SWEET, LIVELY AND SPARKLING.

Stir into the cask, some pounded chalk, in common, about from half a pound to a pound is sufficient for a barrel of liquor, but this depends on the quantity of acid to be neutralized—you had better use too little than too much, as you then have an opportunity of putting in more, till you reduce as much of the acid as you wish ; in a few hours, it has its effect—when wine or cider becomes sour, it generally loses some of its lively taste and sparkling appearance, which is the carbonic acid (fixed air) but that substance being a native inhabitant of the chalk, is set at liberty by the acid of the wine or cider, and escapes, if the cask be open, without doing any good, but merely neutralizing the acid of the liquor ; whereas if the cask be full of liquor and well bunged after the chalk is put in, the fixed air will diffuse itself throughout the whole mass of liq-

nor and render it lively and sparkling—but this substance not being so well incorporated as the original had been by the act of fermentation, will not continue with the liquor so long as if it were original, and this liquor should be used sooner on that account—an addition of a little spirit would prevent it souring again.

Any wine may be so much clarified with isinglass, that it will become too thin and lean; in this case, it is better to beat up a number of eggs with some milk, stir them in and let the wine stand on the lees—the wine will feed on the eggs and grow rich—the eggshells ought not to be used (as is sometimes done,) for they are a carbonate of lime, and would neutralize some of the tartarous acid of the liquor, and not suffer it to settle, until they were all dissolved.

TO RENDER LIQUORS CLEAR, THAT HAVE BECOME COLOURED WITH RUSTY IRON, &c.

Stir into the cask some milk and eggs well beaten together, let it settle and rack it off; fresh blood would be better, though it would be disgusting to some people if they knew it—the coagulum of these articles, envelope the colouring matter, and precipitate it to the bottom.

None but clean casks should be used on any account; and all casks, before they are lain aside for the season, should be well washed, dried, smoked with sulphur, and bunged tight—this will prevent them from becoming mouldy, as well as from destruction by worms.

THE END.

INDEX.

PAGE

A

ADVERTISEMENT

Ambergrise, essence of 50
Alloy, Fusible 41

B

BLUE PRUSSIAN 10
Blue Prussian, 2d mode 10
Butter, to purify 28
Balsam, Friar's 47
Balsam, Turlington's 48
Botts, cure for 51
Bitters, best aromatic 52
Beaume, de vie 50
Bitters, No. 2 52
Bitters, Stoughton's 52
Boots and Shoes, 41
Brown water colour 19
Books, to remove grease 25

C

COLOGNE WATER 46
Cordial, Holland Gin 7
Cloth, to remove spots 8
Cordial Cinnamon 10
Cordial Golden 10
Cherry Wine, to make 29
Cordial of anniseed 38
Catsup of walnuts 42
Carmine 45
Cement for broken China 50
Cordial Godfrey's 51
Cinnamon, essence of 52
Cement Armenian, 53
Cotton thread, bleaching of 58
Creme de Noyau 38
Court plaster 46

D

DAFFY'S ELIXIR 47
Daffy's Elixir, 2d mode for 47
Dye Green, for silk 21
Dye Blue, for silk 21
Dye straw colour, for silk 22
Dye red, for silk 22

PAGE.

Dye light purple, for silk, 25
Dye crimson, for silk 62
Dye fine blue, 23
Drops, Bateman's 47
Drops, Friar's 49
Deeds damaged, 62

E

EAU DIVINE 52
Essential spirit of Flowers, 41
Elixir Proprietatis 51
Eau de luce 49
FININGS of alum, 7
Flowers, fresh, to procure 46
Freezing mixtures 68
Flowers, French mode 8
Freckles, to remove 64
Fruit trees, to preserve 62
Fences, to preserve 41
French Noyau, genuine 40

G

GINGER WINE, 6
Green & yellow Usquebaugh 26
Gooseberry Wine 33
German Wax 28
Gold Lacquer 49
Gun-barrels, browning 65
Gun barrels, to preserve 66
Gold lace how to clean 68

H

HILL'S balsam of honey 53
Hill's second method 53
Hair, how to preserve 64

I

IRON, to cleanse 5
Ice, to make in summer 7
Ink, sympathetic 18
Ink powder, common 37
Ink powder, another 37
Indian Ink 38
Indelible Ink 42
Ink, permanent 42
Ink, Smith's best black 49

	PAGE.		PAGE.
Ivory, to stain black	54	Powder, for the teeth†	48
Ivory, how to whiten	54	Peppermint, essence of	50
Ivory, or bone	55	Pomatum	54
Ivory, &c. another red for	55	Perfume, fine	56
Ink, a very fine red	56	Portable soup	59
Ink, blue	56	Plate, to clean	68
Ink, green	56	R	
Itch, ointment for	36	RATAFIA	57
L		S	
LAVENDER WATER	18	SEALING WAX	37
Lac, artificial	19	Sealing wax, black	37
Linen, scorched	25	Spirit of soap, for shaving	40
Lime water	28	Soap, to take out spots	43
Lip salve, Damask	36	Sulphur, balsam of	44
Lavendar, compound	43	Sapphire water	44
Lemons, essence of	51	Shoe blacking	47
Lavendar, essence of	52	Silver Lacquer	49
Leather, cleaning of	67	T	
Lead, white, to make	69	TIN, solution of	55
Led red, to make	70	To render Liquors clear	82
Liquors, rectification of	71	V	
Liquors, Foreign	71	VARNISH, for brass	6
Liniment, anodyne	39	Varnish of copal	12
Liquors, imitation of	76	Varnish, oil of copal	13
Liquors, colouring of	77	Varnish of copal, drying	13
M		Varnish copal, by Martin	14
NOTHS, to destroy	5	Varnish, of seed lac	14
Malt, to brew	12	Varnish, of shell lac	15
Meat, to preserve	27	Varnish, white	15
Metheglin, red and white	30	Varnish white, another	15
Mead, another mode for	30	Varnish, lacquer	16
Mahogany colour	24	Varnish lacquer, another	16
Musk, artificial	45	Varnish, for iron work	16
Milk of roses	53	Varnish for Plaister Paris	16
Mixture, to take out spots	57	Varnish, black	17
Malt, to make	66	Varnishing observations	17
Mr. Allison's process	74	Varnish for coloured prints	41
O		Vegetative liquid	61
OPODELDOCK	35	Vitriol white, to make	11
Opodeldock, 2d mode	35	W	
Opodeldock, 3d mode	35	WINE, AMERICAN	31
Ottar, for roses	25	Wine, from currants	32
Oil, British	36	Wine, of Elder	32
Oil British, 2d mode	36	Wine, Champagne	33
Oil British, 3d mode	36	Wine and Cider	78
Ointment, for the scab	57	Wine, from new Cider	80
P		Wine or Cider sweet	81
PAPER, to stain	9	Ware's tincture	50
Paint, a fine green	18	Water, how to purify	57
Peaches, &c. to keep fresh	25	Y	
Phosphoric phials	39	YEAST, how to make	34



Mod. Plot

102

270

H 3 4 30

1816

C. 1



